A

THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

ELEVENTH ANNUAL REPORT OF THE PRESIDENT AND OF THE TREASURER

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PART I

THE BUSINESS OF THE YEAR

REPORT OF THE PRESIDENT

To the Chairman and Trustees of the Carnegie Foundation for the Advancement of Teaching:

In accordance with the by-laws, I present herewith the Eleventh Annual Report of the President of the Foundation, for the fiscal year ending September 30, 1916.

In addition to the usual current business of the Foundation, the year has been devoted largely to extensive correspondence and many conferences concerning the comprehensive Plan of Insurance and Annuities which was issued as the Ninth Bulletin. This plan, which is discussed fully in later pages, has now received the general approval of nearly all of our associated institutions which have expressed a formal opinion.

The general study of pensions has continued without abatement, and a report upon teachers' pensions in particular has been prepared at the request of the committee on pensions of the National Education Association and presented to the committee, the National Council of Education, and the Association itself.

For the Division of Educational Enquiry the report includes a statement of progress in its studies of legal education, engineering education, the training of teachers in Missouri, and of Federal grants for agricultural and mechanical education, each of which is now approaching completion.

ENDOWMENT, INCOME, AND EXPENDITURE

The trustees held in trust at the close of the fiscal year the following securities, given at their face value:

(*a*) General Endowment	
United States Steel Corporation 50 year 5 per cent Gold Bonds	$12,000,000.00
Other Securities	2,164,000.00
Total	$14,164,000.00
(*b*) Division of Educational Enquiry	1,250,000.00
Total	$15,414,000.00

During the fiscal year the trustees received for general purposes a total income of $800,322.84, of which $700,322.84 came from the general endowment and $100,000 from the Carnegie Corporation of New York, being the interest on two millions of the endowment of the Foundation not yet paid in; and an income of $50,313.23 from the endowment of the Division of Educational Enquiry. The expenditures have been as follows:

(*a*) General Endowment		
Retiring Allowances and Pensions in Institutions on the Associated List		
Officers and Teachers	$479,923.91	
Widows	90,317.32	$570,241.23
Retiring Allowances and Pensions granted to Individuals		
Officers and Teachers	$83,839.91	
Widows	33,019.30	116,859.21
Expenses of Administration		38,684.00
Publication		5,629.32
Total		$731,413.76
(*b*) Division of Educational Enquiry		
General		$8,664.26
Study of Legal Education		5,141.27
Study of the Training of Teachers		20,059.30
Study of Engineering Education		11,242.65
Publication		2,885.40
Total		$47,992.88

THE ANNUAL MEETING OF THE TRUSTEES

The trustees held their tenth annual meeting at the offices of the Foundation on November 17, 1915. President Slocum of Colorado College, the chairman of the board, presided. Of the twenty-four trustees, twenty-three were present.

In the election of officers President Slocum of Colorado College was chosen chairman, President Hadley of Yale, vice-chairman, and President Thwing of Western Reserve University, secretary, each to succeed himself. President Butler of Columbia and President Humphreys of Stevens Institute were elected to succeed themselves on the executive committee for a term of three years. Dr. Marion Le Roy Burton, president of Smith College, was elected a trustee to fill the vacancy caused by the retirement of Dr. James M. Taylor, president of Vassar College.

On the recommendation of the executive committee, it was voted that the word "associated" should be substituted for the word "accepted" in the formal statements of the board in such terms as "accepted list" or "accepted institutions."

Concerning the new Plan of Insurance and Annuities, the following resolutions were adopted:

> *Resolved*, That the Board of Trustees approve the efforts of the president to devise a contributory pension system which, without unfairness to the just expectations of institutions or individuals under the present rules, shall enable the Foundation to expand its sphere of usefulness and ensure its permanent ability to meet all financial obligations expressed or implied;

Further Resolved, That the Board present to the associated institutions for their careful consideration a report of the President of the Foundation upon a comprehensive pension system, to be applied in the future, with the request that, if they deem it desirable, they submit alternative plans or suggestions, and the Board herewith announce that whatever plan is finally adopted will be devised with scrupulous regard to the privileges and expectations which have been created under existing rules.

THE EXECUTIVE COMMITTEE

THE executive committee met four times during the fiscal year. Full records of these meetings with detailed reports of the current finances were forwarded to the trustees after each meeting. The retiring allowances and pensions voted by the committee during the year are given in full on later pages of this report. In response to an enquiry the committee decided that it was not appropriate for those who were in receipt of retiring allowances to give courses of instruction that are credited toward degrees.

The committee considered carefully the responses to the Plan of Insurance and Annuities, deciding that full time should be given for its discussion.

In response to requests for studies of art education, business education, and education of the deaf in the United States, of educational conditions in the Maritime Provinces of Canada, of education in Porto Rico, and of higher education in Nevada, the committee expressed regret at its inability to undertake such studies at present.

The committee approved the reply of the president to the request of the Carnegie Corporation for a statement concerning the situation, policy, and possible needs of the Foundation. Copies of this reply have been sent to each trustee.

ALLOWANCES GRANTED DURING THE YEAR

1. IN INSTITUTIONS ON THE ASSOCIATED LIST

RETIRING ALLOWANCES

Institution	*Name*	*Academic Title*	*Date Effective*
Columbia University	Francis Marion Burdick	Dwight Professor of Law	*June* 30, 1916
	William Hubert Burr	Professor of Civil Engineering	*July* 15, 1916
	Adolphe Cohn	Professor of Romance Languages and Literature	*June* 30, 1916
	Henry Stephen Redfield	Nash Professor of Law	*Aug.* 1, 1916
	William Milligan Sloane	Seth Low Professor of History	*Sept.* 30, 1916
Cornell University	Irving Porter Church	Professor of Applied Mechanics and Hydraulics	*July* 23, 1916
Dartmouth College	John King Lord	Professor of the Latin Language and Literature	*June* 30, 1916
Franklin College	Melvin Elliott Crowell	Vice-President, Dean, and Professor of Physics and Chemistry	*Feb.* 1, 1916
Harvard University	Joseph Doddridge Brannan	Bussey Professor of Law	*Sept.* 1, 1916
Johns Hopkins University	Harmon Northrop Morse	Professor of Inorganic and Analytical Chemistry	*Sept.* 1, 1916
Leland Stanford Junior University	John Caspar Branner	President	*Jan.* 1, 1916
	Oliver Peebles Jenkins	Professor of Physiology and Histology	*Aug.* 1, 1916
	David Starr Jordan	Chancellor	*Aug.* 1, 1916
	Lillian Jane Martin	Professor of Psychology	*Aug.* 1, 1916
Marietta College	Joseph Hanson Chamberlin	Professor of English	*July* 1, 1916
	Eduard Emerson Phillips	Professor of Philosophy	*July* 1, 1916
Massachusetts Institute of Technology	Calvin Francis Allen	Professor of Railroad Engineering	*July* 11, 1916
University of Michigan	Byron Alfred Finney	Reference Librarian	*Oct.* 1, 1916
Mount Holyoke College	Cornelia Maria Clapp	Professor of Zoölogy	*June* 15, 1916
New York University	Daniel Webster Hering	Professor of Physics, and Dean of the Graduate School	*Sept.* 1, 1916
Oberlin College	Albert Temple Swing	Professor of Church History	*Sept.* 1, 1916
Rensselaer Polytechnic Institute	Dwinel French Thompson	Professor of Descriptive Geometry, Stereotomy, and Drawing	*June* 15, 1916
University of Toronto	John Squair	Professor of French	*June* 30, 1916
Vassar College	Sophia Richardson	Assistant Professor of Mathematics	*June* 1, 1916
Wabash College	Hugh Macmaster Kingery	Professor of Latin	*June* 30, 1916
Wellesley College	Ellen Louisa Burrell	Professor of Pure Mathematics	*July* 1, 1916
	Ellen Hayes	Professor of Astronomy and Applied Mathematics	*Sept.* 24, 1916
	Sarah Frances Whiting	Professor of Astronomy and Director of Whiten Observatory	*July* 1, 1916
Williams College	Samuel Fessenden Clarke	Professor of Natural Science	*July* 1, 1916
Yale University	Henry Augustin Beers	Professor of English Literature	*July* 1, 1916

WIDOWS' PENSIONS

Institution	*Name*	*Husband's Title*	*Date Effective*
Amherst College	Margaret Duncan Morse	Professor of History	*Apr.* 13, 1916
Bowdoin College	Mrs. Ira Pierce Booker	Treasurer	*Apr.* 19, 1916
Cornell University	Elizabeth McMaster Flint	Professor of Physiology	*Oct.* 23, 1915
	Clara Doherty Hart	Professor of the English Language and Literature	*May* 19, 1916
	Ellen C. Mandeville	Assistant to the Treasurer	*Nov.* 15, 1915
University of Michigan	Mary Worcester D'Ooge	Professor of Greek	*Oct.* 13, 1915
University of Toronto	Isabel Grace Mackenzie King	Lecturer in Law	*Sept.* 30, 1916
University of Virginia	Virginia Whitehead	Professor of Anatomy and Dean of the Department of Medicine	*Feb.* 7, 1916
Washington University	Ellen Frances Jewell Snow	Professor of History	*June* 29, 1916
Wesleyan University	Lula A. Raymond	President and Professor of the English Bible	*Mar.* 29, 1916
Yale University	Adeline Blakesley Du Bois	Professor of Civil Engineering	*Oct.* 20, 1915

2. IN INSTITUTIONS NOT ON THE ASSOCIATED LIST

RETIRING ALLOWANCES

Institution	*Name*	*Academic Title*	*Date Effective*
Queen's University	Daniel Miner Gordon	Principal	*Oct.* 1, 1916
	William Nicol	Professor of Mineralogy	*Oct.* 1, 1916

WIDOWS' PENSIONS

Institution	*Name*	*Husband's Title*	*Date Effective*
Bethany College	Elizabeth M. Wynne	Professor of Hebrew and History	*Jan.* 31, 1916
Newfoundland School of Art	Ida B. Nichols	Professor of Art	*Aug.* 18, 1916
University of Illinois	Sarah Helen Alexander Burrill	Professor of Botany	*May* 15, 1916
University of Maine	Mary Lovejoy Fernald	Professor of Philosophy	*Feb.* 8, 1916

FINANCIAL DATA CONCERNING ALLOWANCES GRANTED DURING THE FISCAL YEAR

October 1, 1915, to September 30, 1916

PARTICIPANTS	*Number of Allowances Granted*	*Average Age at Date of Retirement*	*Average Length of Service*	*Number of Deaths during the Year*	*Average Amount of Allowance*	Total Grant for the Year
Professors and Officers in Institutions on the Associated List	28	65.7	33.5	22	$2,118.93	$59,330.00
Professors and Officers in Institutions not on the Associated List	2	63	23.5	4	1,830.00	3,660.00
Widows of Professors and Officers in Institutions on the Associated List	13			6	918.33	12,730.00
Widows of Professors and Officers in Institutions not on the Associated List	3			1	881.66	2,645.00
Total	46			33	General Average of Retiring Allowances $1,703.59	78,365.00

ALLOWANCES NOW IN FORCE

FINANCIAL SUMMARY ON SEPTEMBER 30, 1916

GRANTEES	Number of Allowances in Force				Average Age at Date of Retirement			Average Length of Service			Average Amount of Allowance			TOTAL GRANT IN FORCE SEPT. 30, 1916
	On basis of age	*On basis of service*	*On basis of disability*	*Total*	*Retired on basis of age*	*On basis of service*	*On basis of disability*	*Retired on basis of age*	*On basis of service*	*On basis of disability*	*On basis of age*	*On basis of service*	*On basis of disability*	
PROFESSORS AND OFFICERS IN ASSOCIATED INSTITUTIONS..	198	55	10	263	67.5	63.4	57.7	34	34	28.2	$2,048.33	$1,901.50	$1,196.28	$501,915
PROFESSORS AND OFFICERS NOT IN ASSOCIATED INSTITUTIONS	40	24	4	68	70	64.9	58.9	25.9	36.5	29.2	1,891.75	1,466.73	1,259.97	96,115
WIDOWS OF PROFESSORS AND OFFICERS IN ASSOCIATED INSTITUTIONS				98							932.07			91,343
WIDOWS OF PROFESSORS AND OFFICERS NOT IN ASSOCIATED INSTITUTIONS..........				29							761.03			22,070
TOTAL				458							GENERAL AVERAGE OF RETIRING ALLOWANCES $1,553.37			711,443

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TOTAL NUMBER OF ALLOWANCES GRANTED

Year	Institutions	Age	Service	Permanent Disability	Temporary Grants	Widows	Total	Deduct: For Deaths	Deduct: For Discontinuances	Net Increase		Allowances & Pensions in Force at End of Year
1906[1]	Associated Institutions	21	18		7	5	51			51		
	Non-Associated Institutions	18	15		4	3	40	1		39	90	90
1906-7	Associated Institutions	24	14		2	7	47	9		38		
	Non-Associated Institutions	8	16		3	1	28	8		20	58	148
1907-8	Associated Institutions	18	18		4	9	49	8	1	40		
	Non-Associated Institutions	11	9		4	6	30	5	1	24	64	212
1908-9	Associated Institutions	29	25		8	13	75	5		70		
	Non-Associated Institutions	18	15		4	3	40	2	1	37	107	319
1909-10	Associated Institutions	26	6	2	4	7	45	11	11	23		
	Non-Associated Institutions	10		1	2	5	18	12	3	3	26	345
1910-11	Associated Institutions	21		6	2	13	42	15		27		
	Non-Associated Institutions		1		1	4	6	2	3	1	28	373
1911-12	Associated Institutions	29		3		11	43	11	2	30		
	Non-Associated Institutions	2				3	5	9	1	5[2]	25	398
1912-13	Associated Institutions	22				8	30	17		13		
	Non-Associated Institutions	2				1	3	12		9[2]	4	402
1913-14	Associated Institutions	20		5		12	37	12		25		
	Non-Associated Institutions	3		1		3	7	4		3	28	430
1914-15	Associated Institutions	20		1		16	37	22		15		
	Non-Associated Institutions	2				4	6	6		0	15	445
1915-16	Associated Institutions	24		2		15	41	28		13		
	Non-Associated Institutions	1		1		3	5	5		0	13	458
	Totals	329	137	22	45	152	685	204	23			458

[1] July 1 to September 30. [2] Decrease.

GEOGRAPHICAL DISTRIBUTION OF ALLOWANCES GRANTED

State, Territory, or Province	Number of Allowances granted: In Institutions on the Associated List	Number of Allowances granted: In Institutions not on the Associated List	Number of Allowances granted: Total	Deaths	Temporary Allowances Discontinued	Number of Allowances in Force
NORTH ATLANTIC DIVISION						
Maine	11	4	15	4	1	10
New Hampshire	11		11	3	1	7
Vermont	6		6	2		4
Massachusetts	89	4	93	26	3	64
Rhode Island		2	2	1		1
Connecticut	34	3	37	10		27
New York	94	9	103	30	4	69
New Jersey	23		23	10		13
Pennsylvania	34	9	43	14	1	28
Total			333			
SOUTH ATLANTIC DIVISION						
Maryland	10	1	11	1		10
District of Columbia	2	6	8	3		5
Virginia	10	11	21	10		11
West Virginia		7	7	2		5
North Carolina		7	7	3		4
South Carolina		7	7	3		4
Georgia		4	4	2		2
Florida		3	3			3
Total			68			
SOUTH CENTRAL DIVISION						
Kentucky	5	4	9	3		6
Tennessee		8	8	7		1
Alabama		5	5	3		2
Mississippi		2	2			2
Louisiana	11		11	2	1	8
Total			35			
NORTH CENTRAL DIVISION						
Ohio	20	17	37	12	2	23
Indiana	14	5	19	2		17
Illinois	3	7	10	4	2	4
Michigan	12	4	16	5		11
Wisconsin	24		24	5		19
Minnesota	22	1	23	6		17
Iowa	7	14	21	4	4	13
Missouri	17	4	21	8		13
North Dakota		3	3	2		1
Nebraska		1	1			1
Kansas		5	5	1	1	3
Total			180			
WESTERN DIVISION						
Montana		2	2	1		1
Colorado	2	5	7		2	5
California	18	8	26	7	1	18
Oregon		5	5	2		3
Total			40			
THE DOMINION OF CANADA						
Ontario	5	4	9			9
Quebec	11		11	4		7
Nova Scotia	3		3			3
New Brunswick		3	3	1		2
Prince Edward Island		1	1			1
Total			27			
NEWFOUNDLAND						
		2	2	1		1
Total			2			
Grand Total	498	187	685	204	23	458

TOTAL EXPENDITURE IN ALLOWANCES

Year	Institutions	*Number of Institutions*	*Number of Teachers in Faculties*	*Number of Retired Teachers on Roll*	*Average Age at Retirement on Basis of Age*	*Amount of Retiring Allowances Paid*	*Number of Widows Pensioned*	*Amount of Widows' Pensions Paid*	*Total Load of Allowances and Pensions*	*Total Amount Paid*
1906[1]	Associated	52	2,261	46	71	$15,478.53	5	$1,124.97	$77,935	$16,603.50
	Non-Associated	32		37	70	6,474.53	3	124.98	48,910	6,599.51
1906–7	Associated	55	2,309	88	70	77,574.09	12	8,039.06	129,855	85,613.15
	Non-Associated	48		55	71.6	47,654.11	4	2,420.00	77,525	50,074.11
1907–8	Associated	62	2,444[2]	124	70	146,140.47	19	14,989.48	203,290	161,129.95
	Non-Associated	59		66	70.5	80,134.26	10	5,378.20	100,215	85,512.46
1908–9	Associated	67	2,966[2]	185	69.7	206,472.57	33	24,545.00	313,985	231,017.57
	Non-Associated	62		100	69.8	104,536.66	13	8,316.67	152,335	112,853.33
1909–10	Associated	71	3,512[2]	198	69.6	291,403.98	40	33,795.04	382,120	325,199.02
	Non-Associated	77		92	70.6	132,497.51	17	12,137.77	138,950	144,635.28
1910–11	Associated	72	5,025	215	69.5	341,899.16	52	46,720.17	425,105	388,619.33
	Non-Associated	77		85	70.1	122,215.10	21	16,044.57	128,560	138,259.67
1911–12	Associated	72	5,066	236	69.3	388,338.27	61	53,646.37	478,440	441,984.64
	Non-Associated	68		79	69.7	108,329.55	22	20,045.84	125,415	128,438.39
1912–13	Associated	73		244	69	416,626.37	67	62,360.77	501,415	478,987.14
	Non-Associated	63		72	69.2	102,814.10	21	18,588.77	115,055	121,402.87
1913–14	Associated	73		268	68.7	444,966.52	79	69,523.06	544,150	514,489.58
	Non-Associated	66		76	69.1	99,984.68	24	20,389.51	121,185	120,374.19
1914–15	Associated	73		257	66.9	473,969.38	91	80,152.31	571,298	554,121.69
	Non-Associated	65		70	68	99,850.81	27	20.752.47	119,370	120,603.28
1915–16	Associated	74		263	66.3	479,923.91	100	90,317.32	593,258	570,241.23
	Non-Associated	66		68	71	83,839.91	27	33,019.30	118,185	116,859.21

[1] July 1 to September 30. [2] Estimated.

TOTAL LOAD OF ALLOWANCES ASSUMED

Year	Institutions	Age	Service	Permanent Disability	Temporary Grants	Widows	Total	Deduct: For Deaths	Deduct: For Discontinuances	Net Increase		Annual Load at End of Year
1906[1]	Associated	$28,545	$34,915		$9,975	$4,500	$77,935			$77,935		
	Non-Associated	22,330	20,145		5,600	2,170	50,245	$1,335		48,910	$126,845	$126,845
1906-7	Associated	36,750	24,435		2,540	6,165	69,890	17,970		$51,920		
	Non-Associated	11,040	23,355		3,370	500	38,265	9,650		28,615	80,535	207,380
1907-8	Associated	28,200	27,450		9,600	8,675	73,925	4,480	$600	$68,845		
	Non-Associated	14,785	14,975		6,000	4,080	39,840	11,800	960	27,080	95,925	303,305
1908-9	Associated	47,855	46,490		12,485	11,700	118,530	7,685		$110,845		
	Non-Associated	20,540	30,500		5,100	2,220	58,360	6,190	1,500	52,170	163,015	466,320
1909-10	Associated	56,315	12,820	$2,515	7,000	7,025	85,675	17,830	19,370	$48,475		
	Non-Associated	16,970		720	2,400	5,060	25,150	14,975	3,900	6,275	54,750	521,070
1910-11	Associated	40,515		8,380	1,800	12,250	62,945	26,815	2,360	$33,770		
	Non-Associated		3,010		1,000	2,955	6,965	3,920	4,220	1,175[2]	32,595	553,665
1911-12	Associated	58,185		4,375		10,705	73,265	16,930	3,000	$53,335		
	Non-Associated	5,600				3,000	8,600	10,745	1,000	3,145[2]	50,190	603,855
1912-13	Associated	43,575				6,810	50,385	27,130	280	$22,975		
	Non-Associated	4,200				600	4,800	15,160		10,360[2]	12,615	616,470
1913-14	Associated	49,790				12,180	61,970	17,710		$44,260		
	Non-Associated	6,430				2,500	8,930	4,325		4,605	48,865	665,335
1914-15	Associated	45,350		775		14,433	60,558	33,410		$27,148		
	Non-Associated	3,450				2,765	6,215	8,030		1,815[2]	25,333	690,668
1915-16	Associated	57,105		2,225		12,730	72,060	50,100		$21,960		
	Non-Associated	2,400		1,260		2,645	6,305	7,490		1,185	20,775	711,443

[1] July 1 to September 30. [2] Decrease.

PUBLICATIONS OF THE FOUNDATION

THE following publications were issued during the year:

The Tenth Annual Report of the President and of the Treasurer, *142 pages.* 1915.

Including discussions of pensions for public school and for university teachers, clergy pension funds, and industrial pensions, with tabular statements of 65 teachers' and 58 industrial and institutional pension systems; together with reports of the progress of the Foundation's studies of legal education, engineering education, and the training of teachers in Missouri, the results of its study of Education in Vermont; and a discussion of college charges for tuition.

Bulletin Number Nine. A Comprehensive Plan of Insurance and Annuities for College Teachers, *68 pages.* 1916.

A discussion, by the president of the Foundation, of pensions, annuities, and life insurance in general and for teachers in particular, with indications of the limitations of the Foundation's present system and suggestions for the development of a comprehensive and permanent plan.

(Confidential edition for officers and professors of the institutions that are associated with the Foundation, October, 1915. Reprinted, with a preliminary statement, for general distribution, April, 1916.)

Cumulative Index of the First Ten Annual Reports of the President, *78 pages.* 1916.

PART II

INSURANCE AND ANNUITIES

THE OPINIONS AND DESIRES OF TEACHERS

The Trustees of the Carnegie Foundation hold in trust two endowments, one to be used in the support and maintenance of a pension system under such rules as the trustees may determine from time to time; the other to be used in the study of educational questions and in the publication of these studies.

The development of its pension system along sound lines is the most direct duty of the trustees, a responsibility all the more important because the pension problem, while a living question in every state and province of the United States and Canada, is still involved in confusion.

To this problem the executive officers of the Foundation have addressed themselves during the ten years of its history. The results of their studies were presented to the trustees at the last annual meeting in the form of a provisional report. The trustees referred this report to the trustees and faculties of the associated colleges, and later published it as a bulletin for general distribution. It has received a wide reading amongst college teachers, and has been subjected to the close scrutiny of many actuaries and statisticians.

Great interest attaches to the responses from the associated institutions, and particularly to those coming from the faculties, not only from the point of view of the enquiry itself but from that of the institutions. These replies do not as a rule assume to be given from the standpoint of the expert, altho in several cases the assistance of actuaries was obtained. The valuable statement presented on behalf of the faculty of the University of California was prepared by a group of members of that faculty trained in actuarial and statistical work, and may fairly be looked upon as an expert opinion. From eight institutions no replies have as yet come. A considerable number asked that further time be given for framing such statements as they desired to make. There are, therefore, in hand some fifty-two statements of a formal character made either on the part of the trustees or of the faculties, and in some cases on the part of both. These are printed at the end of this section as an appendix. An examination of these replies will make clear both the points in which they agree and in which they differ. Without attempting to classify these replies, some attention may be given to the questions which are raised by them. These very naturally divide themselves into two parts—those which refer to the deficiencies of the existing system and those which deal with the possibilities of the one which is proposed.

In the provisional report the fundamental weaknesses ascribed to our present system of pensions were the following:

I. A non-contributory pension system for college teachers or for any other vocational group will not in the long run work for the economic betterment of the group concerned.

II. Any pension system maintained for college teachers should receive the support of the teacher and of his employer, the college corporation.

III. Pensions are in the actuarial sense deferred annuities. They must be considered from the standpoint of the man entering the profession of the teacher, not from the standpoint of those leaving it. No such system of deferred annuities can be secure unless the reserve for each beneficiary is set aside year by year. Only under this arrangement is the cost determinable. All systems of paying pensions out of current income have broken down or become intolerably burdensome.

IV. At its inception the Carnegie Foundation contemplated a pension system for a limited number of institutions. The experience of ten years shows that this partial solution of the problem is neither adequate nor would it be fair to the great majority of college teachers.

It will be noted that the first two of these statements are the expressions of economic and social experience. The third is purely a matter of actuarial science.[1] The fourth is the expression of the experience of the executive officers of the Foundation who have dealt year by year with its problems. I refer now very briefly to the treatment of these topics in the replies of the associated institutions.

The question as to how a free pension affects salary is one which has been discussed for fifty years. Unless one is willing to go thru the mass of literature devoted to it, he is likely to take his opinion from the short span of his own personal experience. Economists who have followed the working of the older pension systems in Europe are in fair agreement that sooner or later the free pension is counted against the salary. Of this fact the teachers in the associated colleges are not yet entirely persuaded. During the ten years of the existence of the Carnegie Foundation there has been a marked rise in college salaries. This rise will probably continue for some time to come. It is independent of the granting of a pension, tho both mark the effort for a better compensation for the teacher. But when once the pension provision has been accepted as a part of the régime of college service, it will thereafter be counted as part of the remuneration. Where the pension is a free pension, it will inevitably be counted for much more than its money value. This is constantly done at the present time by teachers themselves. A man of forty, receiving three thousand dollars in one of the associated colleges, is offered an increase of salary of fifteen hundred dollars in an institution in which no retiring allowance is provided. An instructor at thirty is offered an increase of five hundred dollars a year to make a similar change. Both decline — the first in the prospect of a pension twenty-five years away, the second in the prospect

[1] The Boston Teachers' Retirement Fund Association, established in 1900 to pay pensions of $180 annually, was obliged to reduce its pensions in 1914 to $132 a year, and in 1915 to $120.

The Cincinnati Teachers' Pension Fund, established in 1911, was able in 1913 to pay only 80 per cent of the promised pensions.

The Milwaukee Public School Teachers' Annuity and Retirement Fund, established in 1909 to pay annual pensions of $400, was obliged in 1915 to reduce its pensions to $300.

The New York City Teachers' Retirement Fund, established in 1894 to provide half-pay pensions, was unable to meet its obligations in 1916. Investigation showed the actuarial liabilities of the fund to be $69,809,760 and the assets $15,066,440, leaving a deficiency of $54,743,320. (The liabilities of the nine pension funds of the city were found to be $215,520,413, the assets $12,744,845, leaving a deficiency of $202,775,568.)

The Providence Public School Teachers' Retirement Fund, established in 1897, to provide half-pay pensions, reduced its pension in 1906, and in 1915 could pay only 33.39 per cent of the promised amounts.

The New South Wales Civil Service Superannuation Account, established in 1884, had exhausted its resources in 1903 and the government assumed the liabilities.

of a pension thirty-five years away. In each case the individual could have paid for his retiring allowance several times over with the increase in salary. If the general expression of opinion by those who have studied the matter does not weigh with the individual who believes on *a priori* grounds that a non-contributory pension is so much money added to his pay, there is probably no way by which he can be convinced short of a thorough study of the subject.[1]

An examination of the replies themselves, however, will make clear the fact that the college teacher in these institutions prefers to undertake his fair share of the cost of the retiring allowance system, not because he is entirely convinced of its financial advantage—for there still lingers in his mind an impression that a pension paid for by some one else is on the whole so much to the good—but for the reason that college teachers prefer independence and are ready to bear their share of the cost of a pension system, provided a plan is presented which is fair, secure, and within the limit of their ability to pay.

The attitude of the teachers in the associated colleges with respect to the fourth question raised is perhaps the most interesting of all, since it has to do with the possible extension of the retiring allowance system to the general body of teachers. An examination of the replies which are printed at the end of this section brings out the fact that the teachers in the associated colleges are in practical accord in holding that the primary obligation of the Foundation is to the teachers in these institutions, and that their expectations should be safeguarded before any extension of the system of retiring allowances is undertaken. A few of these replies present the view that the interests of education will be best served if the Carnegie Foundation confines its retiring allowances permanently to the present group of colleges, or at least to a group limited in number.

Some light is thrown upon this question by the following statement of the expenditures for retiring allowances in the associated institutions during the past year and five years before:

[1] The conclusion that free pensions are counted as salary is definitely presented after extended argument in: United States House Documents, 62d Congress, 2d Sess., Vol. 117, Appendix A, *Savings and Annuity Plan proposed for Retirement of Superannuated Civil Service Employees*, pp. 58 f.; Appendix B, *Civil Service Retirement—Great Britain and New Zealand*, pp. 143-187 *passim.* (Washington, 1912.) *Report of the Massachusetts Commission on Old Age Pensions*, pp. 300 ff. (Boston, 1910.) *Report of the Massachusetts Commission on Pensions*, pp. 183-186. (Boston, 1914.)

The participants in the British Civil Service non-contributory superannuation system, established in 1857, became generally convinced by 1900 that the pensions were deferred pay and reacted unfavorably upon salaries. The report of a Parliamentary Commission, appointed in 1902, accepted the contention, and the Superannuation Act of 1909 not only assures the participant a pension at the age of 65, but adds also an insurance benefit to his dependents if he dies before that age, or a gratuity if he withdraws from the service before reaching the age of retirement. The conclusion of the Courtney Commission (1902) on this matter is given in the following words: "It appears to us to be true that a deferred pension is remuneration for services as much as an immediate money payment; but it is, in part at least, remuneration for service contingently payable on the continuity being maintained during a defined period and not accruing from year to year as an indefeasible interest."

Referring to the non-contributory pension for Prussian teachers, Herr J. Tews, the leader of the elementary teaching profession, declares that "an official with a right to a pension and to protection for his dependents can hardly compare his income with those in other callings. . . . Practically the consequence is that in the regulation of salaries the benefits of a pension privilege are estimated too high." (See W. Rein, *Encyklopädisches Handbuch der Pädagogik*, Vol. VI, p. 618.)

	1915–16	1910–11
Harvard University	$59,433.33	$38,753.36
Yale University	45,504.84	36,823.32
Columbia University	35,431.03	28,219.97
Cornell University	33,356.13	25,314.22
University of California	21,030.00	12,472.53
University of Minnesota	20,620.00	6,717.50
Massachusetts Institute of Technology	19,943.70	4,560.00
Johns Hopkins University	15,891.66	4,883.33
Tulane University	15,818.33	14,531.64
Amherst College	13,308.55	8,621.64
University of Wisconsin	12,605.05	9,185.53
University of Virginia	12,136.77	3,060.08
Princeton University	11,560.00	11,255.67
University of Missouri	11,165.00	10,914.13
University of Pennsylvania	10,736.20	4,265.00
Washington University	10,075.65	6,860.00
Vassar College	9,975.00	4,067.08
University of Toronto	9,281.80	—
University of Michigan	9,250.70	5,480.00
New York University	9,089.58	5,180.00
Dartmouth College	9,205.00	5,950.00
McGill University	8,737.69	10,410.58
Smith College	8,330.00	5,248.33
Stevens Institute of Technology	7,199.56	9,279.58
Washington and Jefferson College	7,143.57	3,361.67
Leland Stanford, Jr., University	6,528.33	3,300.24
Williams College	6,545.00	5,775.03
Swarthmore College	6,070.00	4,350.00
University of Pittsburgh	6,000.00	2,750.00
Dickinson College	6,000.00	1,986.23
Franklin College	5,818.36	3,805.00
Carleton College	5,781.09	6,445.00
Dalhousie University	5,505.00	1,260.00
Lehigh University	5,025.00	3,425.00
Purdue University	4,950.00	1,000.00
Oberlin College	4,670.00	3,250.00
Western Reserve University	4,380.00	3,225.00
Bowdoin College	4,254.87	2,615.00
Polytechnic Institute of Brooklyn	4,150.00	4,150.00
Wells College	4,065.00	4,065.00
University of Vermont	3,753.00	2,386.26
Beloit College	3,280.00	2,000.00
Central University of Kentucky	3,237.34	4,655.00
Case School of Applied Science	3,230.00	1,781.66
Radcliffe College	3,100.00	5,500.00
Mount Holyoke College	3,001.80	1,730.00
Hobart College	2,911.00	2,169.69

	1915–16	1910–11
University of Cincinnati	$2,910.00	$4,665.00
Bates College	2,755.00	2,755.00
University of Rochester	2,720.00	3,720.00
Wabash College	2,581.25	885.01
Wesleyan University	2,542.03	3,075.00
Grinnell College	2,450.00	1,000.00
Drake University	2,485.80	2,373.75
Trinity College	2,230.00	1,457.53
Knox College	2,230.00	950.00
Coe College	2,140.00	1,556.75
Drury College	2,065.00	2,065.00
Tufts College	1,972.05	2,320.00
Wellesley College	1,923.22	2,923.17
Marietta College	1,840.33	2,160.00
Middlebury College	1,750.00	1,750.00
Colorado College	1,505.00	1,505.00
Ripon College	1,274.20	1,500.00
Union College	1,353.65	1,559.25
Rose Polytechnic Institute	1,040.00	1,040.00
Lawrence College	950.10	500.00
Indiana University	845.00	—
Rensselaer Polytechnic Institute	706.66	—
Worcester Polytechnic Institute	60.60	1,820.00
Thos. S. Clarkson College of Technology	—	—
Hamilton College	—	—
Clark University	—	—
	$571,414.82	$388,619.35

It will be noted that a little more than one-third of the total payment is made to five institutions, and that approximately one-half of the total expenditure is in ten institutions. The great universities will grow in future more rapidly than the moderate-sized universities or colleges. The tendency indicated in these figures will therefore be accentuated from year to year. The maintenance of a distinctive pension system for a limited group of institutions will result, therefore, in time in the expenditure of the great bulk of the income of the Foundation in a small number of institutions.

When the Carnegie Foundation began, it was clearly set forth that the funds in the hands of the trustees and any funds likely in the future to come to them would suffice for the maintenance of generous retiring allowances such as were proposed in a limited number of institutions. Seventy-three have been admitted to these privileges.

The conception of the endowment of a limited group of institutions with a fully paid retiring allowance system seemed at that time sound. The working out of the plan during these eleven years has convinced me that the permanent restriction of the benefits of the Foundation to a definitely limited number of institutions would be

neither in the interest of American education nor just to the great body of American college teachers.

Certain weaknesses in a pension system restricted to a limited group of colleges whose number cannot be increased are evident. The purpose of the discrimination is to exert a wholesome stimulus upon all colleges. This stimulating influence will disappear if these colleges can never hope to attain to the elect.

Such a separation operates to create an educational tariff in favor of the small group of selected colleges, and if permanent, would be at least of doubtful wisdom. The arrangement tends to restrict the healthy migration of teachers from one college to another. It is important to throw no barriers in the way of this migration. When a weak college brings a strong teacher to its service from a well-known institution his influence may be exactly the force needed for its upbuilding. The reasons for a general and democratic solution of this important question are deeper than those implied by these considerations of detail.

The object of the Carnegie Foundation is to contribute not to a particular institution, but to make fuller and richer the opportunity open to the American teacher. There are in the United States and Canada somewhere near a thousand institutions calling themselves colleges or universities. A large number of these are still colleges in name only. No one can tell at this day how many of them will become fruitful and strong educational forces in their respective states. It is, however, clear that many of them are on the way to attain this position. A number are comparable now with many of the associated colleges by any criterion of academic worth. To draw an arbitrary distinction between such institutions involves a discrimination which ought not to be made permanent.

The Trustees of the Carnegie Foundation may conceive of their trust from two points of view. They may consider it a trust definitely determined by the Founder and intended only to provide for the direct payment of retiring allowances upon a generous scale, and confine these necessarily to a few institutions. On the other hand, they may conceive their trust as one committed to them by the Founder, to be worked out along the general lines indicated by him in such a way as to contribute in the largest possible manner to the upbuilding of the profession of the teacher, and it may be assumed that whatever does this is in the interest of all colleges and of all universities.

Mr. Carnegie deliberately gave to his trustees full power to carry out such a development. Of the wisdom of a contributory system he soon became convinced, but the power and responsibility for the development of the pension system to meet the demands of the future he left absolutely to his trustees. It is for them to choose as between these two conceptions, and to determine which is the expression of a sound educational statesmanship.

When we began there was little knowledge available as to the working of any of these problems. The ten years of our history have served to bring together the expe-

rience of the whole world in this matter. It would seem now that the part of the trustees to readjust the pension system started ten years ago in accordance with this knowledge. The question for decision is not one of mere detail. It is more far-reaching. It is this: Assuming that the just expectations of the associated colleges and their teachers have been met, is it wiser to develop a system of pensions available on equal terms to the great body of teachers and to all colleges of acknowledged service and fruitfulness, or is it in the interest of education and of the teaching profession to confine these pensions to the present group of institutions?

The answer to this question depends upon the assumption that a plan can be devised upon the contributory basis that shall be sound and permanent, that shall impose upon the teacher and upon his college a financial load not only within their financial ability, but one which neither the teacher nor the college corporation can afford to shift to other shoulders. It is the purpose of this discussion to present such a plan.

In the replies of the associated colleges one question overshadows all others. Will the "just expectations" of the teachers in the associated colleges be fully met?

What are these "just expectations"?

When the Foundation made its first announcement, the trustees, after adopting rules fixing the amount of the pension, the age of retirement, and similar conditions, included in these rules the following provision:

> Rule X. The Carnegie Foundation for the Advancement of Teaching retains the power to alter these rules in such manner as experience may indicate as desirable for the benefit of the whole body of teachers.

For what reason was this condition attached? What do the words mean? Are the pensions offered under this proviso conditional or contractual?

Some of those in the associated colleges hold that retiring allowances granted under such terms are contracts; that the youngest instructor who last year entered one of the associated colleges has a vested right to a retiring allowance from the Foundation a generation hence.

It is interesting to recall that when the Foundation, ten years ago, announced its rules governing retiring allowances, this reservation was sharply criticized, on the ground that nothing was guaranteed, in contrast with the contractual nature of the pensions already established in a few of the older universities.

The occasion for the insertion of this proviso and the thought in the minds of the trustees at the time can be stated in a few words. The trustees realized that they were starting on an unknown path, that estimates for the future were subject to great errors, that the support which might later be forthcoming for the pension system must depend to a large extent on the action of others, and that above all a larger experience might show that modification of the plan was "desirable for the benefit of the whole body of teachers." They therefore reserved the power to make such modification. Naturally they had, as honorable men, the purpose to carry out any such modification with

strict regard to the "just expectations" of the teachers in the colleges admitted to the privileges of the retiring allowances. To modify the present rules in such manner as to work hardship or inconvenience upon teachers whose plans for the future have been shaped to conform to them would be manifestly unjust. How much men twenty or twenty-five years away from retirement have changed their life plans in expectation of such a pension is, however, a debatable question. The claim that an instructor who has just entered one of these institutions has a vested right in a pension thirty years hence upon these exact terms would not be conceded by any fair or impartial tribunal. The responsibility to determine what is a reasonable and just exercise of the power of revision retained by the trustees, and whether such revision at this time is "desirable for the benefit of the whole body of teachers," is one which the trustees keenly realize, and which they will do their utmost to discharge honorably and wisely.

In the effort to work out this arrangement in practical form two things ought not to be forgot. The teachers in a group of institutions not at present included in the associated colleges and universities, but whose work is comparable to that of many of them, have also had from the beginning "expectations." These institutions, if now admitted to the system of insurance and annuities, will for a generation face a most difficult problem of which the associated colleges are relieved, that is, the burden of the accrued liabilities of their older men. It is not possible for the Foundation or any other endowment, however large, to undertake this burden for all the colleges of the United States and Canada. A very slight variation of the present rules—such, for example, as the raising of the minimum age of retirement ten years hence—would give a margin by which this load could be lightened and the problem of these institutions made easier during this transition period. When one considers the expectations of the older men—between the ages of 55 and 70, for example—in institutions not yet admitted to the associated list, these expectations seem weighty in comparison with those of a young instructor in one of the associated universities. These young men to whom the opportunities of the new insurance and annuity plans are fully open will not themselves ask that their "expectations" of thirty or forty years hence displace those of men grown old as teachers and to whom no such opportunity is open.

One other fact was not clearly understood by all teachers in the associated colleges. No one has proposed to divert the income of the present endowment to the needs of the new pension system until the obligations of the present pensions are met. The setting up of the new machinery must be financed by new funds. All this has been assumed from the beginning. One cannot, however, consistently demand that these retiring allowances be made into contracts to be carried out during the next generation under the precise rules now in use and at the same time expect that a large part of the cost of the old age pensions in institutions admitted under the new plan be also carried by the Foundation.

For fifty years all the present income of the Foundation (and much more) will be necessary to provide retiring allowances for teachers now in the associated colleges.

During this period the participation of the Foundation in the new system of insurance and annuities must necessarily be limited to what is necessary to set up and maintain the machinery of a sound pension system upon a secure and permanent basis. In the endeavor to accomplish this great result the Foundation counts upon a hospitable and generous attitude of the teachers in the associated colleges toward the extension of the pension system to their brethren on the outside whose "expectations" are less definite.

√ The following suggestions as to possible changes in the present rules will be found amongst the replies of the associated institutions:

(1) That the minimum retiring age be advanced to 67 years or beyond.

(2) That the maximum pension in the future be $2500.

(3) That the scale of all pensions be reduced.

(4) That the present pensions be made contractual.

(5) That the rules be changed so as to enable teachers at 65 to enter upon partial participation in the pension benefits without complete cessation of teaching. It is proposed that the teacher accept an agreed proportion of his salary and receive a pension benefit based on the proportion of the salary relinquished.

To illustrate. A teacher receiving $3000 is entitled on retirement at 65 to a pension of $1900. If he arranges to retain three-quarters work and three-quarters pay, he would receive under this arrangement one-fourth of his pension, making his total compensation $2725.

Should he arrange to do half-work on half-pay, he would receive half his pension, making his total remuneration $2450.

Should he arrange to do one-fourth work and receive one-fourth pay, he would receive three-fourths of his pension, making a total compensation of $2175.

I now turn to the expressions of opinion of college teachers and trustees touching the proposed plan. The matter falls under two heads, first the purpose and principles of a pension system, second the advantage to the individual teacher of combining a term insurance policy with an annuity contract.

In order to focus the discussion upon fundamentals rather than details, I restate in the briefest form the essential principles of the plan proposed, stripped of details. Until these underlying principles are accepted there is no occasion to discuss details.

The Fundamental Principles of a Pension System

A Pension System like Insurance is an effort to meet by some form of coöperation certain economic and social needs which many members of the existing social order are unable to satisfy as individuals. The needs themselves and the occasion for the coöperation arise out of the

modern industrial and vocational organization of society. Under this régime large groups of men, in trades and vocations, must live and support their families upon annual wages or salaries limited in amount. Society rightly assumes that, so long as the bodily and mental powers of the individual are not impaired, he shall remain a self-sustaining economic unit in the body politic. It is of fundamental importance to conserve to him this independence and this sense of responsibility. Dependence is perhaps the greatest misfortune which can overtake him and his family. The risks which threaten dependence arise out of the economic relation which exists between a fixed wage and the hazards incident to human life. They vary with different groups and callings. To teachers, who, as a class, live upon modest salaries, but who have nevertheless secure tenure of place, three such risks are of primary importance: That of premature death of the teacher, with the consequent dependence of his family; and those of failure of income-earning power due to old age or to disability, either of which may bring dependence to both the teacher and his family.

The fundamental principles which must underlie any such coöperation are few. They are in part the expression of social and economic experience, in part the requirements of actuarial science. They may therefore be considered in two groups.

I

1. The function of a pension system is to secure to the individual who participates in it protection against the risk of dependence due to old age or to disability.

2. The obligation to secure this protection for himself and for his family rests first upon the individual. This is one of the primary obligations of the existing social order. Society has done its best for the individual when it provides the machinery by which he may obtain this protection at a cost within his reasonable ability to pay.

3. Men, either on salary or on wages, are, in the economic sense, employees. The employer, whether a government, a corporation, or an individual, has a direct financial interest in the establishment of some pension system which shall enable old or disabled employees to retire under satisfactory conditions. In addition, society demands to-day that the employer assume some part in the

moral and social betterment of his employees. The obligation of the employer to coöperate in sustaining a pension system is primarily a financial one, and in the second place, a moral one.

4. A pension system designed for any group of industrial or vocational workers should rest upon the coöperation of employee and employer.

5. Teachers pensions should be stipendiary in character, amounting to a fair proportion of the active pay.

II

1. In actuarial terms a pension is a deferred annuity upon the life of one or more individuals, payable upon the fulfilment of certain conditions.

2. In order that an individual participating in a pension system may be assured of his annuity when due, one condition is indispensable: There must be set aside, year by year, the reserve necessary, with its accumulated interest, to provide the annuity at the age agreed upon. On no other conditions can the participator obtain a satisfactory contract. The man of thirty who participates in a pension plan under which he expects an annuity thirty-five or forty years in the future will take some risk of disappointment in accepting any arrangement less secure than a contractual one.

3. A pension system conducted upon the actuarial basis of setting aside, year by year, the necessary reserve is the only pension system whose cost can be accurately estimated in advance.

4. A method by which a pension is paid for in advance in annual or monthly instalments is the most practical plan which can be devised for purchasing a deferred annuity, provided that the contributions begin early in the employee's career, and provided also that the contributions paid in year by year receive the benefit of the current interest for safe investments.

5. As a matter of practical administration, a pension system should apply to a group whose members live under comparable financial and economic conditions. To attain its full purpose, participation in the pension system to the extent of an agreed minimum should form a condition of entering the service or employment the members of which are coöperating in the pension system.

CONCLUSION

A contributory system conducted and supported by the joint coöperation of employees and employer, and which sets aside year by year the reserve necessary to provide each pension when due, offers the only form of pension coöperation for large groups of wage-earners or salaried employees which is at once fair, permanent, and of reasonable cost.

In the replies of the associated institutions will be found a wide variety of opinions touching these fundamental propositions. Before dealing with them, however, and while the conditions of the proposed plan are clearly before our eyes, it seems wise to refer to one or two matters of general importance.

There is a widespread impression that this discussion is due wholly to a lack of funds, that if ten or twenty millions of dollars were added to the endowment of the Foundation, the question of a reform of the pension plan would not have been raised. An inspection of the fundamentals of a pension system as presented above ought to dispel this belief. If these principles are sound, no amount of additional endowment would justify the perpetuation of a pension system on any other basis. My recommendations in this matter have been made without reference to the question of support. It is for the trustees to decide in the light of our experience and of the experience of the world what is a sound pension system, and to request the coöperation of the Carnegie Corporation in carrying out its provisions.

Teachers have not entirely appreciated how greatly the system of insurance and annuities here proposed increases the freedom of the Foundation in dealing with colleges and with individual teachers. To one who deals month by month and year by year as an executive with the administration of this trust certain incongruities and inequalities become more evident and more pressing.

The Charter of the Foundation repeated with great literalness the conditions set forth in the Founder's deed of gift. In this there is provision for pensions to be paid to teachers as individuals, but there are also arbitrary distinctions between institutions on the ground of sectarianism. The trustees themselves added a further discrimination on the basis of educational standards. These two purposes — the service to the individual teacher and the discrimination among institutions — do not necessarily function together.

To illustrate. Dickinson College, which is Methodist, has nothing in its charter fixing the denominational status of its trustees. Its professors have the privileges of the Carnegie Foundation pensions. Brown University, which is administered in a broad spirit, and whose faculty are chosen without denominational discrimination, is excluded on the technicality of a charter granted one hundred and fifty years ago.

There are two ways of dealing with the situation: one is to continue to admin-

ister the trust in the strict letter; the other is to so widen the basis of the pension system (with the Founder's approval) as to do substantial justice and accomplish his real purpose. The system of insurance and annuities under the conditions proposed gives such freedom. While the Foundation could not under this plan pay a disability pension to individual professors in Brown University, there seems no reason why teachers in an institution like Brown should not participate in the insurance and in the old age annuities.

The same situation holds good in dealing with the individual teacher. The purpose of the Foundation is the betterment of the calling of the teacher. While its charter compels it to make certain discriminations among institutions, it is highly desirable that these be not made at the expense of the individual teacher, who may or may not be partly responsible for conditions which exclude his institution. The plan here proposed presents such elasticity in dealing with the individual teacher upon a generous basis.

The plan of insurance and annuities as here proposed contemplates a greater freedom for the individual teacher in every way. He is less dependent on the status of his college. He takes his annuity contract with him in migrating from one college to another. The time of retirement can be arranged at any time in which the teacher and his college may agree upon it. All this makes for greater freedom both for the teacher and his college.

There is great need that the opportunities of this system of insurance and annuities be open to the great body of younger teachers who have good training and scholarly devotion. When such a régime has been a generation in use, there will seldom be occasion to pay a direct pension except to the teacher disabled by the misfortune of disease or accident.

Let us turn now to the opinions set forth in the statements of the associated institutions. I regret that it is impossible to print the hundreds of individual letters, which are quite as illuminating as the more formal resolutions.

With regard to the obligation of the individual to provide protection for himself and his family against the hazards of dependence, there is practically a unanimous opinion. The traditions of independence and individuality are strong amongst teachers, and they are ready to do their share in the support of a pension system, provided it is made clear that such participation means reasonable cost and satisfactory security.

The replies which are printed in the Appendix do not reveal any such unanimity with regard to the third statement of the first group. The obligation of the employer to coöperate in the pension system is not so universally admitted. It would be more accurate to say that, while most teachers admit the general principle that the employer is obligated financially and morally to coöperate in a retiring system for his employees, this general principle is held not to apply to the college or to the university in its capacity as employer. It is argued that business corporations, since they

are conducted for profit,[1] can afford to undertake such participation, but that colleges and universities are not conducted for profit, and that any income appropriated by the college authorities to coöperation in a retiring allowance plan means just so much withdrawn from other college needs.

It does not require long consideration to bring out the weakness of this reasoning, or to realize that the acknowledgment by the college government of its duty to assume the ordinary obligations of the employer is of utmost importance to the teacher. This obligation has nothing to do with the special work of the employer, it inheres in the relationship itself. A few universities have already accepted it. The corporation of Yale, in formulating its statutes relating to pensions (1897), asserts, "The obligation of the Corporation to pay retiring allowances shall be neither greater nor less than their obligation to pay salaries." This statement is repeated in the Harvard statutes (1899), and in those of the University of Chicago (1912). The whole decision rests upon the question whether a participation in a retiring allowance system for old or disabled employees is one of the fundamental duties of a corporation to its employees, assuming that such participation has a reasonable proportion to other obligations.

There are duties of the individual which no man may shift to other shoulders without loss of moral power. It is equally true that organized groups of men forming corporations have certain duties which they may not transfer or disregard. The college government cannot delegate to others the obligation to deal fairly and humanely with its employees, the college teachers; to guarantee them honorable security of position, freedom of action, decent salaries, and a fair coöperation in some form of protection against those hazards of their professional life which affect the interest of both teacher and college.

The sincere recognition of these obligations by the government of the college involves corresponding responsibilities on the part of the teaching body—the obligation of common loyalty and of personal devotion to the cause the college serves; the obligation to translate academic security and academic freedom in terms of wise action, not in terms of egotism or self-exploitation; the obligation of scholarly sincerity and modesty.

The mutual obligations of the governing body and the teaching body in American colleges have been vigorously discussed during the past ten years. Out of this discussion will come in time a clearer appreciation of their respective fields and a more sympathetic acknowledgment of their mutual obligations.

One transformation has come about in the American college in the past twenty-five years that has gone far to affect both teachers and governing boards in envisaging their individual and corporate obligations. During this period the American college or university has become a systematic agency for the solicitation of money. In no country and at no time in the world's history has so large a part of the energy

[1] As a matter of fact, business corporations assuming such obligations do so without conditioning them on future profits.

of college administration gone into systematic begging. Much has been said concerning the effect of this upon the individual teacher or student. The danger is a real one. Nothing is more difficult than to give money wisely to the individual unless it be to give wisely to a corporation, for the corporation may be demoralized thru giving quite as truly as the individual.

The fact that colleges are agencies for systematic solicitation of money has obscured in some measure the question, What are the primary obligations of the college government—to its students, to its teachers, to the public? The tendency is to measure these obligations in terms of the money which can be obtained rather than in terms of what the obligations themselves are. Let us come back to fundamental considerations. A college governing board has by reason of its relations to the human beings in its employment certain primary obligations. Is the coöperation in a retiring allowance provision one of these primary obligations?

The argument that money appropriated by the college from its income to such a purpose withdraws by so much its support of other college needs requires a moment's examination.

Every college governing board is confronted by a situation under which it has many more demands upon it than it can meet. It devotes its income to those purposes that on the whole it considers most desirable. Some colleges that feel themselves unable to coöperate in a retiring allowance plan find the money to advertise, to build a stadium, to add buildings, and to solicit more students. The decision as to what shall be done is dependent on the point of view.

Each college board dealing with the real or fancied needs for expansion in all directions must also find certain directions in which to keep down expense. The most common method of saving money for general purposes is to economize in teachers' salaries. Every dollar devoted to increasing the salary of a teacher means so much withdrawn from all other good causes—additional laboratories, new subjects, more teachers, more buildings, more playgrounds, more students. The way to save money to carry out these multiform desires and ambitions is to cut down the pay of the teachers to the lowest point. This resource for saving money exceeds all others.

The matter is one of simple common sense and fair dealing. Has an employer certain obligations *qua* employer? Does the college corporation recognize such obligations toward its employees? Is the participation in the retiring allowance system one of these obligations? If it is not, there is no need to spend time upon it.

The second group of fundamental principles applicable to a pension system are simply the results of actuarial science.

A life insurance company may not, under the law, write life insurance contracts and undertake to fulfil them out of the current income which it may have forty years hence. The law compels the company to set aside year by year the reserve necessary with its accumulation to pay policies as they may accrue. In thinking of a pension system we are disposed to view it from the standpoint of the old teacher about to

leave the service. This is natural enough, but from the financial point of view it is fatal. A pension system so conceived is easy to start—it costs but little at the beginning, but its load is an ever increasing sum which no man can estimate in advance.

A teacher at age thirty and expecting his retiring allowance at sixty-five or later ought to have the security of a contract. There is no basis upon which this contract can be entered into except to set aside year by year the reserve necessary to produce the annuity when due. This matter is not one open to debate, it is merely the mathematical expression of actuarial science.

Exactly the same things are true with regard to the ultimate cost of the annuity when it accrues. The cheapest possible form of providing it at a given time in the future is to do so by annual payments extending over a long period. These are purely questions of actuarial computation, concerning which competent actuaries will not differ.

A word should be said with regard to one matter touched upon in the fifth paragraph of this second group, since it is a question which receives frequent mention in the replies sent in from the associated institutions.

It is stated in this paragraph that "to attain its full purpose, participation in the pension system to the extent of an agreed minimum should form a condition of entering the service or employment the members of which are coöperating in the pension system." This expression also is one founded upon economic experience. The truth of it will not be gainsaid by any one who will go into the facts.

It does not, however, necessarily follow that compulsory participation in a pension system should be one of the requirements of the Carnegie Foundation. I have not proposed that this should be a part of the rules of the Carnegie Foundation, notwithstanding the fact that in my judgment it will in time come about. College teachers, like other men, are averse to any form of compulsory participation, either in proposed benefits or other forms of activity. It is my notion that the character of the participation should be determined by each institution. Each college should decide whether it will require of the men who enter the teacher's life in its service a minimum participation in the retiring allowance, or not. The question will in a few years settle itself. The experience of railroads in the matter of participation in hospital dues is illuminating. Such participation has become after a few years compulsory with the practically unanimous approval of employees. The advantages of participation in the pension plan to the young man entering upon the teacher's calling will be so great that teachers may be trusted to avail themselves of them. Thus a young instructor at twenty-five decides to begin the accumulation of a thousand dollar annuity available at sixty-five. The cost is approximately ten dollars a month. If his college offers to pay half of this sum, and if in addition a disability allowance is provided by the Foundation, it is difficult to see how a man so circumstanced could otherwise make a use of his money bringing to him and to his family such important results. While, therefore, the experience of the world shows that compulsory participation in a pen-

sion system is one of the conditions to be fulfilled in order that it may have its full result, it would seem to me wiser to leave this matter to be settled by each college in conference with its teachers, with the expectation that amongst a group of men as intelligent as teachers, and in view of the enormous advantages which are offered, the participation of college teachers will become universal.[1]

In several of these communications the question of the payment of taxes levied by the states on premiums paid by those who insure is raised. The answer to this cannot be definitely given. The fraternal orders have been able to escape these taxes on the ground that their aim is philanthropic. It is not clear whether the agency contemplated here and organized under the laws of New York would be subject to this tax.

Finally, a word needs to be said as to the disability benefit and the reasons why it is recommended that this be carried by the Foundation.

At the end of ten years of the administration of the Carnegie Foundation the relative cost of the three benefits provided under its rules is as follows:

Retiring allowances—80 per cent of the total cost.
Widows' pensions—15 per cent of the total cost.
Disability pensions—5 per cent of the total cost.

The determination as to what constitutes disability is a difficult one, and has always proved a troublesome matter for insurance companies. All conditions attaching to insurance and annuity benefits need to be stated in unmistakable terms, the simpler the better. There can be no question between the company and the beneficiaries of a life insurance policy as to its payment. It depends upon a definite indisputable fact—the death of the insured. In the same way the annuity is due at a definite age, concerning which there can be no dispute. But the determination whether a man is disabled to the extent that he can no longer perform the duties of a teacher is one involving difficult decisions.

The experience of the Foundation in this matter is illuminating. In a considerable number of cases the disability was complete, and the teacher either died in a short time or remained a helpless invalid. In a few cases recovery took place. In certain cases those drawing disability pensions have taken up other occupations, and are enjoying larger incomes than they had as teachers, while drawing pensions for total disability. This is due to the very generous terms under which the Foundation has hitherto given disability pensions. For example, the loss of hearing has been held to disqualify a man for teaching, and he has received a pension and generally sought other employment.

[1] Those who have followed this discussion are referred to the *Eighth Annual Report* of the President of the Foundation (pages 39-46), containing a full description of the Federated Pension System of the English Universities. Fourteen institutions participate in this system. It was adopted on the recommendation of a very able Commission, whose chairman was Sir William McCormick, and of which Professor James A. Ewing, Sir William Osler, Sir Arthur W. Rücker, Sir Walter Raleigh, and Sir John Rhys were members. The plan includes insurance and annuities, and provides a 5 per cent contribution on the part of both the professor and the university. Participation to the extent of an established minimum is compulsory upon all teachers. This feature apparently has not been objectionable to English teachers.

To carry a disability benefit upon sound lines the Foundation would need to provide its own medical examination and to make its decision in each case as it arose. It was for these reasons in part that the plan which has been proposed threw upon the Foundation the cost of the disability benefit and left to it the conditions under which it should be granted. In insurance and annuity benefits no difficulties in operating a contributory plan arise out of the uncertainty of the condition. When a man dies, his insurance is due. When he is sixty-five years old, he can claim his annuity. In the case of disability the decision is often complicated. A disability benefit in meritorious cases is one of the most pressing needs of a relief system, but the very uncertainty in its determination makes its inclusion in a contributory system difficult. Here is exactly the field in which an agency outside the college may legitimately carry the load, and determine by its own methods in what cases the relief may be granted. No method of administering a disability benefit is likely to be satisfactory to all concerned, but it will approximate more nearly to what is right under a system administered by those whose sympathies are generous but whose judgments are not influenced by personal and institutional sentiments.

In one of the communications printed at the back of this report will be found the suggestion that in future direct pensions be paid only to those upon whom the misfortune of disability has fallen. When such a system of insurance and annuities as is here contemplated has been fifty years in operation this position will be measurably justified. To men entering such a calling, in which protection against dependence is attainable upon such moderate terms, a situation will finally ensue under which only those upon whom the misfortune of bodily or mental disability has fallen will be in need of such assistance.

I turn now from the discussion of the pension or annuity system to a discussion of the second matter dealt with in these replies—the combination of the term insurance policy with the annuity contract, and for the sake of clearness I restate the fundamental principles involved.

Insurance and Annuities

The problem of the pension system involves under ordinary conditions a coöperation simply between employee and employer. In case of college teachers the Carnegie Foundation has received an endowment for coöperating with colleges and college teachers in the payment of pensions or in such other ways as may seem to the trustees wise. Assuming that all just obligations which have been incurred are discharged, it is still the duty of the trustees to determine their most fruitful form of coöperation with the college and with the teacher along the general direction in which its charter authorized it to act. It has been pointed out that the risk of dependence confronts the teacher and his family in three forms: Premature death, failure of income-earning power due to advancing age, disability due to accident or disease. Expressed mathematically and assuming 65 as the age of retirement, the first risk is approximately

50 per cent, the second approximately 20 per cent, and the third probably about 5 per cent.

Shall the Carnegie Foundation deal with all three of these risks, with two, or with one?

In the report which is in your hands I have urged a comprehensive plan embracing all three. I collect in brief form the reasons which seem to justify this recommendation.

I. For reasons given in full in the preceding pages it is proposed that the Foundation carry the entire load of disability pensions.

II. Of the two risks which remain, that of death before 65 is the greater and carries consequences more far-reaching for the teacher's family.

III. The protection for this risk offered by insurance companies is not only necessarily more costly than that of the pure life risk, but forms of insurance are commonly sold to teachers which are ill suited to their needs. Term insurance can generally be had from the standard companies for short terms only. For these and for other reasons the amount of insurance carried by teachers is wholly inadequate and out of proportion even to their modest salaries. Recent papers by university professors of insurance are illuminating in indicating the absence of a definite sense of responsibility on the part of teachers in the matter of insurance.

IV. The argument which seems conclusive rests upon the financial advantage which results from having a single agency provide both term insurance up to a given age, and a contract for an annuity beginning at the expiration of the insurance. The man who has an annuity awaiting him at a fixed date in the future desires an insurance policy quite different from that of a man who has no such expectation. The term policy and the annuity contract at its termination mutually support each other, and together make a more stable concern than one conducting an annuity business alone.

A single illustration may be given.

Assume that at age 30 a teacher begins with contributions toward a $5000 life insurance policy to end at 65, and a $1000 annuity to begin at the same age.

Should he be among those who die prematurely, his contract has protected his family. It will receive his $5000 insurance plus the accumulation of his contribution toward his annuity.

Should he survive till age 65, there will be to his credit a sum accumulated during thirty-five years for the purchase of his annuity. He will purchase this annuity from the same company which sold him life insurance. This insurance will show a surplus, and his participation in this surplus will quite measurably increase the annuity which can be sold to him on the basis of his accumulations. This surplus arises from two sources. The legal basis of interest is $3\frac{1}{2}$ per cent. The actual interest received will be higher. The legal mortality table is the American. It is higher than the mortality rate

of teachers. It is not possible to tell absolutely the surplus to which such a participator would be entitled, but assuming $4\frac{1}{2}$ per cent interest and using the recent mortality experience of well-conducted insurance companies, which no doubt represents closely the experience of teachers, the man who began at 30 on the basis of a $5000 policy might expect the following participation in surplus and the corresponding addition to his annual pension according to the age at which he retired:

Age of Retirement	*Surplus*	*Corresponding Increase in his Annuity*
65	$1058.65	$116
66	1106.30	126
67	1156.05	137
68	1208.05	149
69	1262.40	162
70	1319.20	177

From the standpoint of safety and permanence an agency insuring men up to 65 (or later) and selling them annuities thereafter is in a far stronger position than one which simply does an annuity business, and it can offer to the teacher a more favorable combination for meeting his needs than can be offered in any other way. Whether the surplus accumulated by such an insurance agency can be appropriated year by year and finally paid in at the termination of the policy is a matter not clear. A participating policy must, under the law, apportion the distribution of the surplus earned year by year. It may be distributed in an annual dividend, thereby cutting down the premiums by a small amount, or the dividends may go to purchase endowment insurance to accrue at the expiration of the policy. It is to the interest of the teacher that any such apportionment of surplus should accumulate and apply to the increase of his insurance or of his annuity. Some plan to do this can undoubtedly be worked out.

It is desirable to make clear at the beginning that the question of insurance is entirely separate from the question of pensions. I have tried to show the advantages both to the teacher and to the stability of the agency providing the annuities in a combination of term insurance with an annuity contract, but it goes without saying that any teacher who desires to purchase his insurance elsewhere must have the privilege of doing it. An argument is brought forward in several of the communications from the colleges seeking to show that the insurance can be had more cheaply in other sound agencies. It goes without saying that this argument does not appear amongst those replies which have been prepared under the advice of actuaries. Perhaps a single sentence may dispose of this illusion.

When one contracts for life insurance with a company, the sum which he pays is made up of two parts. The first part is the charge for the pure life risk. This part is fixed by law, which prescribes the mortality table and the rate of interest which shall be assumed. No two actuaries can differ as to what it is, and the insurance departments of the various states see to it that every insurance company uses this basis in

estimating its charge for insurance. This is exactly the basis which has been used in computing the cost of the policies which are proposed in the new Plan of Insurance and Annuities.

The second part of the charge which the life insurance company makes is made up of what is called "the load." This contains all the overhead charges, including administration, rent, taxes, and agents. When a man pays one dollar to an insurance company for his life risk, he pays from fifteen to twenty-five cents for these overhead charges. It is not possible for any company operating upon a commercial basis to offer life insurance on the terms proposed in this Plan, whereby no part of "the load" is charged to the teacher's contribution. But the contribution to the subject of life insurance here contemplated arises, not so much out of the lowered cost, as from the fact that a form of insurance is here proposed which is adapted to the teacher's needs.

A word should be said as to the reason why an employer like the college corporation is under obligation to participate in a pension system, while it is under no such obligation to participate in the payment of the teacher's insurance.

Insurance is a form of social coöperation intended to protect the family of the insured against dependence in the event of his death. The question whether a teacher shall marry and take upon himself the responsibilities which marriage entails is one with which the college as an employer has nothing to do. It is purely a question for the individual himself, and the responsibility for meeting its obligations rests entirely with him. The college corporation as an employer assumes no obligation for the man who marries which it does not assume for the man who does not marry. The same thing is true for the man who has other dependents than wife and children.

When it comes to the question of dependence in old age or thru disability, the choice of the teacher's life and the risk of such dependence is a matter of immediate financial concern to the college corporation. All experience shows that employers, whether they be governments, business corporations, or colleges, will retain men in service long after old age has diminished their powers rather than force them into dependence. Participation in some sound and humane method of meeting this situation is a part of the business of any employment in which tenure of place is secure.

The question of medical examination for those who desire insurance is one frequently referred to in these replies and demands a word of explanation.

Where large numbers of men in a given trade or vocation are included under group insurance, policies can be written without regard to medical examination. It is clear that for some years to come this method will not be possible in colleges for the reason that few colleges will be ready to present themselves as groups. A large number of teachers already have insurance and are committed to policies which in most cases are for life. They are paying out as much money for insurance now as they feel able to pay. The group of insured will begin in the main with younger men, those already in the colleges who are free to enter upon the purchase of insurance and annuities, and the new men who enter year by year. It will, therefore, be necessary to have some form of

medical examination sufficient to exclude the risks which are manifestly unfair. Life insurance companies have two forms of medical examination. One is complete and exhaustive, including chemical and biological tests. The other leads to what is called "certification." It guarantees that the applicant is in normal health,—that his heart, lungs, and kidneys are healthy. The examination which would be necessary in the proposed insurance plan would be the equivalent of this certification. The man who would be excluded by this examination ought not in most cases, both for his own sake and for that of a college, to enter upon the life of a teacher, but if he does so enter, he ought not to expect to insure his life at the normal rate. As time goes on and the number of men becomes large, the principles of group insurance may perhaps be applied generally, but the interests of the teacher himself will be conserved by following in this matter a safe course. No form of insurance can be devised which can protect the man who is diseased or physically incapacitated at the same rate at which such protection can be furnished to normal lives. But such a man will rarely find it to his advantage or to the advantage of the college to enter upon the life of the teacher. If he does so enter, he cannot expect that his risk should be assessed at the same rate as that of his healthy colleague. What can be done for subnormal risks in future and after a longer experience with the mortality rate of teachers cannot now be said. It perhaps is not generally appreciated that the medical examination which life insurance companies make cuts down their mortality only for the first five years. That is to say, at the end of five years the group of men who had been admitted upon medical examination would present a mortality experience comparable to that of men taken without medical examination.

THE TEACHERS INSURANCE AND ANNUITY ASSOCIATION

The preceding pages have made it clear that a man entering the profession of the teacher and living on a modest salary will incur the risk of dependence for his family or for himself in three forms:

(1) By his premature death.
(2) By failure of income-earning power due to old age.
(3) By disability due to failure of health.

The first two of these risks are the greater, and they are likewise those capable of exact expression in contracts. Nothing short of a contract can give to the teacher of thirty the security that the annuity he expects at sixty-five will be ready for him. The Carnegie Foundation cannot make such contracts. It cannot go into the business of insurance and annuities upon a contractual basis. This can be done only by an agency organized under the laws of the state and subject to the constant oversight of the state department of insurance. If teachers of the next generation are to have the

certainty of such contracts, it must be provided by some agency subject to the insurance authorities.

While the Carnegie Foundation cannot become such an agency itself, it can devote part of its resources to providing the capital for such an enterprise, and it can from time to time increase its capital or surplus so as to provide all overhead costs, including taxes, so that insurance and annuity contracts may be offered on the most favorable terms and at net cost. From the standpoint of insurance the teacher is a preferred risk, and under such an arrangement would get the advantage of this fact. It is proposed to organize such an agency under the name The Teachers Insurance and Annuity Association. The following statement sets forth the nature of its organization and the policies it will be empowered to offer both in the matter of insurance and annuities.

The Teachers Insurance and Annuity Association

This memorandum deals with the proposed form of a Teachers Insurance and Annuity Association (hereinafter called the Association) and with the form of the policies which the Association will issue. It is an abbreviation of the plan to be submitted for approval to the Superintendent of Insurance. The actual drafts of the charter and the policies have not been included, and no attempt has been made to insert any discussion of the legal questions arising in connection with the plan.

1. *Corporate Organization*

An Association will be organized under Section 70, subdivision 1, of the Insurance Law of the State of New York. The Association will have a capital of $500,000 ($400,000 in excess of the minimum required), and a surplus of $500,000 ($450,000 in excess of the minimum required), from which a deposit of $100,000 with the Superintendent of Insurance will be made by the Association, pursuant to Sections 16 and 71 of the Insurance Law.

The amount of the capital and surplus aggregating $1,000,000 will be provided thru the Carnegie Foundation for the Advancement of Teaching (hereinafter called the Foundation).

The entire capital stock will be owned by the Association. It will be provided in the charter of the Association or by an appropriate deed of trust, that the stock shall pay no dividends. The trustees will be thirteen in number, according to the requirement of the statute. They will be selected with a view to giving the Association the benefit of the best financial and actuarial judgment, together with full representation of the body of policy-holders.

The by-laws of the Association will provide for a policy-holders' committee of five, with power to make a full annual investigation of the affairs of the Association and to report their findings and recommendations to the Association and the policy-holders. The expense of this investigation and report will be borne by the Association. The Actuarial Society of America has appointed a committee to pass upon the actuarial problems of the Association, and the American Institute of Actuaries has appointed a similar committee.

The entire overhead expense of the Association will be paid from the income of the capital and surplus and the accumulations thereon. If these are not sufficient for the purpose, the deficiency will be met by the Foundation. This will make it possible to furnish insurance at net cost and to eliminate all "loading." The business of the Association will be transacted without agents, and it is anticipated that the overhead expense will be light.

2. *Policies*

The Association will issue to college teachers two kinds of policy: (1) Policies of term insurance expiring at the age of sixty-five (or later, up to age seventy, at the option of the insured), designed to cover the risk of death prior to the assumed age of retirement. (2) Deferred annuity policies, under which the annuity payments will begin at age sixty-five (or later, at the option of the annuitant). The annuity policies are designed to provide against loss of income by the teacher and his wife due to retirement. Either insurance or annuity may be taken separately. Taken together the two policies afford protection against the two major risks of the teacher's career. The risk of disability will not at present be dealt with by the Association, but will be provided for by the Carnegie Foundation.

Term Insurance

Policies of term insurance expiring at age sixty-five (or later, up to age seventy, at the option of the insured) will be issued to individual teachers upon medical examination equivalent to "certification," or will be issued to all or substantially all of the teachers of a college applying as a group without medical examination. The policies issued upon medical examination will be limited to a maximum of $25,000 for each teacher, and policies issued to members of groups without medical examination will be limited to a maximum of $10,000 for each teacher. The premiums will be computed on the basis of the American Experience Table and $3\frac{1}{2}$ per cent interest. There is every reason to believe that the Association will realize a higher rate of interest. The Association will not contract to give the insured under the term policies the advantage of profits accruing to it on account of this higher rate. It will, however, provide in its by-laws for a distribution of profits at the end of five-year periods in case the profits are in excess of what actuaries regard as necessary as addition to surplus. This return will be made in cash or in the form of a paid-up addition to the annuity (more fully described below). The offering of term insurance will be flexible, so that varying amounts may be carried at different times, if this is desired.

Deferred Annuity Policies

The Association will issue to college teachers deferred annuity policies in substantially the following form: The annuitant, or his college, or the two together, will contract to pay to the Association "level" premiums of a certain amount each year until the annuitant reaches his sixty-fifth year. The Association will contract to receive these premiums and accumulate them with compound interest at such rate as the Association can procure upon them. The Association will contract that if the annuitant dies prior to age sixty-five, and while still a teacher, it will return to his execu-

tor or administrator the premiums which have been paid to the Association by the annuitant alone (or by the annuitant and his college), with compound interest at such rate as the Association has received on such premiums, but in no case exceeding 4½ per cent. The Association will contract that if the annuitant retires from the profession of teaching prior to age sixty-five, it will return to the annuitant the premiums which have been paid to the Association by the annuitant alone (or by the annuitant and his college), prior to his retirement, with compound interest at the rate of 3½ per cent; or, if he so desires, after having been a contributor for seven years, he may continue the annuity at his own expense. Should an annuitant transfer from one institution to another, there will be credited to him all of his contributions and those of his college on his account. The Association will further contract that if the annuitant reaches the age of sixty-five years without retiring, the Association will consider the entire fund from premiums on his annuity, accumulated with interest as explained above, as a single premium offered to the Association for the purchase of an annuity, computed on the basis of McClintock's Table and 4 per cent interest. In return for this premium the Association will pay to the annuitant an equivalent annuity beginning at age sixty-five, or such later age as the annuitant may elect. The annuitant may, at any time before the payment of the annuity begins, elect to have the annuity take any one of the four following forms:

(1) An annuity of a certain yearly amount, payable monthly to the annuitant during his life with no return to his estate after his death. (2) An annuity of a certain yearly amount payable monthly to the annuitant during his life with a guarantee that if the annuitant dies before he has received annuity payments equal in the aggregate to the sum paid for the purchase of the annuity, the Association will continue to pay the annuity to the executor, or to the administrator of the annuitant, until the total of all the payments made under the annuity is equal in the aggregate to the sum paid for the purchase of the annuity, or will make with the said executor or administrator an equivalent cash settlement properly discounted for the anticipation of payment. (3) An annuity of a certain yearly amount payable monthly to the annuitant teacher during his life, and if the wife of the annuitant teacher survives him, an annuity to the wife of half of the said amount during the remainder of her life. This form involves no payment to the estate of either the teacher or his wife. (4) An annuity of a certain yearly amount payable monthly to the annuitant teacher during his life, and, if the wife of the annuitant teacher survives him, an annuity to the wife of one-half the said amount during the remainder of her life, with a guarantee that if the annuitant teacher and his wife both die before they have received annuity payments equal in the aggregate to the sum paid for the purchase of the annuity, the Association will continue to pay the annuity to the executor or administrator of the annuitant teacher if he survives his wife, or to the executor or administrator of the wife if she survives the annuitant teacher, until the total of all the payments made under the annuity is equal in the aggregate to the sum paid for the purchase of the annuity, or the Association will make with the said executor or administrator an equivalent cash settlement properly discounted for the anticipation of payments.

Owing to the reserve provisions of the New York Insurance Law, the Association will not contract that the annuitant will receive an annuity of any stated amount for the premium which he pays. Nor will it contract to compound his payments at any stated rate of interest, but only at such rate of interest as it can procure. Nevertheless, the Foundation will guarantee to the Association the receipt of at least 4½

per cent on the deferred annuity premiums to the age of retirement, and the policies will be accompanied by non-contractual statements setting forth this fact and showing the amount of annuity which can be procured in each of the four forms set forth above, by a given annual payment, compounded at $4\frac{1}{2}$ per cent.

The principal business of the Association will be the issuance of term insurance and annuity policies of the kinds described above, with suitable flexibility, but it will, by its charter, be authorized to issue all the types of annuities and insurance upon life and health described in Section 70, subdivision 1, of the Insurance Law, including ordinary life and endowment policies.

Policies

Term insurance policies, to terminate at any age from 60 to 70, as the teacher may elect, will be offered.

If colleges apply in groups, such insurance will be furnished to teachers and instructors without medical examination other than the testimony of the individual to the possession of ordinary health and the freedom from specific disease. Group admission will, however, need to be effected gradually by inclusion of men as they enter college service. The minimum policy written under these conditions will be $1000 and the maximum $10,000.

The Association will offer term policies to individual teachers in associated institutions as they may apply, subject to a simple medical examination by a designated examiner. Insurance companies conduct two classes of medical examinations, —one involves a detailed study of the candidate, including all possible sources of disease; the other excludes applicants suffering with specific or chronic disease or whose state of health is below normal. Those who pass this examination receive what is called "certification." The examination required would be equivalent to certification. Policies will be written upon such lives for not less than $1000 nor more than $25,000. The rates for insurance are as follows:

ANNUAL PREMIUM RATES FOR $1000 OF INSURANCE

Age at Issue	Terminating at										
	60	61	62	63	64	65	66	67	68	69	70
25	$10.19	$10.36	$10.53	$10.71	$10.90	$11.09	$11.29	$11.50	$11.71	$11.93	$12.15
26	10.33	10.50	10.68	10.87	11.07	11.27	11.48	11.69	11.92	12.15	12.38
27	10.48	10.66	10.85	11.04	11.25	11.46	11.68	11.91	12.14	12.38	12.62
28	10.63	10.82	11.02	11.22	11.44	11.66	11.89	12.13	12.38	12.63	12.88
29	10.79	10.99	11.20	11.41	11.64	11.87	12.12	12.37	12.62	12.88	13.15
30	10.96	11.17	11.38	11.61	11.85	12.09	12.35	12.61	12.88	13.15	13.43
31	11.13	11.35	11.58	11.82	12.07	12.33	12.60	12.87	13.15	13.44	13.73
32	11.32	11.55	11.79	12.04	12.30	12.57	12.85	13.14	13.43	13.74	14.04
33	11.52	11.76	12.01	12.27	12.55	12.83	13.12	13.43	13.74	14.05	14.37
34	11.72	11.97	12.24	12.52	12.80	13.10	13.41	13.73	14.05	14.38	14.72
35	11.94	12.20	12.48	12.77	13.08	13.39	13.71	14.05	14.39	14.73	15.09
36	12.17	12.45	12.74	13.05	13.36	13.69	14.03	14.38	14.74	15.11	15.48
37	12.41	12.71	13.01	13.33	13.67	14.01	14.37	14.74	15.11	15.50	15.89
38	12.67	12.98	13.30	13.64	13.99	14.35	14.73	15.11	15.51	15.91	16.33
39	12.94	13.27	13.61	13.96	14.33	14.71	15.10	15.51	15.93	16.35	16.79
40	13.23	13.57	13.93	14.30	14.69	15.09	15.51	15.93	16.37	16.82	17.27
41	13.53	13.89	14.27	14.66	15.07	15.49	15.93	16.38	16.84	17.31	17.79
42	13.86	14.24	14.63	15.05	15.48	15.92	16.38	16.85	17.34	17.83	18.34
43	14.21	14.60	15.02	15.45	15.91	16.37	16.86	17.36	17.87	18.39	18.92
44	14.57	14.99	15.43	15.89	16.37	16.86	17.37	17.89	18.43	18.98	19.54
45	14.97	15.42	15.87	16.35	16.85	17.37	17.91	18.46	19.03	19.61	20.20
46	15.39	15.85	16.34	16.85	17.37	17.92	18.49	19.07	19.67	20.28	20.90
47	15.84	16.33	16.84	17.37	17.93	18.51	19.10	19.71	20.34	20.99	21.64
48	16.32	16.83	17.37	17.93	18.52	19.13	19.75	20.40	21.06	21.74	22.43
49	16.83	17.37	17.93	18.53	19.15	19.79	20.45	21.13	21.83	22.55	23.28
50	17.37	17.94	18.54	19.17	19.82	20.49	21.19	21.91	22.64	23.40	24.17
51	17.94	18.55	19.18	19.84	20.52	21.23	21.97	22.73	23.51	24.30	25.12
52	18.55	19.19	19.86	20.55	21.27	22.02	22.80	23.60	24.42	25.26	26.12
53	19.20	19.87	20.57	21.30	22.07	22.86	23.67	24.52	25.39	26.28	27.18
54	19.88	20.59	21.33	22.10	22.90	23.74	24.60	25.49	26.41	27.35	28.31
55	20.60	21.35	22.13	22.94	23.79	24.67	25.58	26.52	27.49	28.49	29.50
56	21.36	22.15	22.97	23.83	24.73	25.65	26.62	27.61	28.64	29.69	30.76
57	22.16	22.99	23.86	24.77	25.71	26.69	27.71	28.76	29.85	30.96	32.10
58	23.00	23.88	24.79	25.75	26.75	27.78	28.86	29.97	31.12	32.30	33.51
59	23.89	24.81	25.78	26.79	27.84	28.94	30.08	31.25	32.47	33.72	35.00
60		25.79	26.82	27.88	29.00	30.15	31.36	32.60	33.89	35.21	36.57
61			27.90	29.03	30.21	31.43	32.70	34.02	35.38	36.79	38.23
62				30.23	31.47	32.76	34.11	35.51	36.96	38.45	39.97
63					32.80	34.16	35.59	37.08	38.61	40.19	41.81
64						35.63	37.14	38.71	40.34	42.02	43.74
65							38.77	40.43	42.16	43.94	45.78
66								42.23	44.06	45.95	47.90
67									46.04	48.05	50.12
68										50.24	52.44
69											54.85

The policy will be rated at the age nearest birthday, and in selecting his term insurance, the teacher will be charged the rate as for age 65, or 66, it being necessary in all cases to secure the teacher from death until after he has reached the minimum age of retirement, 65. For example, if a teacher is 29½ at the time his policy is issued, he will be rated at age 30, term insurance to cease at 66, since such insurance will carry him for 36 years from the time the policy is issued, and consequently beyond the minimum retiring age of 65. If, on the other hand, he is 30 and 3 months, he will

be charged the rate as for age 30, insurance to terminate at 65, since it is necessary for him to be insured for a period of 35 years only to cover the minimum retiring age, 65.

The rates are given for ages up to 70 in order that the professor may, if he wish, protect himself beyond the minimum age of 65, and thereby to cover the possibility that he may, when he reaches 65, wish to continue his work as teacher for several years longer.

It will be noted that when insurance is taken early in life,—for example between the ages of 25 and 35,—the annual cost is little more whether the insurance ends at 65 or at 67, 68, or 70. Thus a teacher insuring at 25 will pay only 20 cents a year a thousand increase to carry his insurance to 66 instead of to 65. It would cost him but 62 cents a year a thousand to carry the insurance to 68 instead of 65, and it would cost him but $1.06 a year a thousand to carry his insurance to 70 instead of 65. It will be understood that in all these cases the cost is based on the assumption that all payments stop at the expiration of the insurance contract. The advantages of this arrangement are very great. For example, a teacher decides to retire at 66, but his insurance runs till 70 if he should desire, or he may terminate his policy at retirement if he wishes.

For teachers of associated colleges it is assumed that such payments will be made in monthly instalments thru the college treasurer in a manner agreed upon by the college, the teacher, and the Association.

The plan upon which insurance is here proposed is simple, and will be clear to any teacher who cares to examine it. It is insurance in its most direct and legitimate form. Its cost is based upon the legal requirement as to mortality risk and rate of interest, which is exactly the minimum basis used by any insurance company. The saving to the insured lies in the fact that he is asked to pay for the pure risk only, and not to bear any part of the overhead charge. Every time a policy-holder pays $1 to an insurance company, he pays somewhere between fifteen and twenty-five cents to carry his proportion of the overhead load—the salaries of officers, the commission of the agent who solicits his insurance, taxes, rent, etc. It is still true that the cost, as given in the preceding table, is considerably higher than that of the pure risk involved in insuring the lives of teachers, and for two reasons: first, the mortality of the legal table (the American Mortality Table) is higher than the mortality of college teachers; secondly, the life insurance companies have averaged for twenty years past $4\frac{1}{2}$ per cent on their money instead of $3\frac{1}{2}$ per cent. There is no reason to suppose that the rate of interest will be lower in the future. An agency, therefore, which insures teachers at these rates, and which pays the expense of the business from trust funds otherwise provided, will accumulate a surplus. This surplus can be returned to the teacher in the form of a so-called dividend, thereby reducing in time the cost of the insurance. It will be shown, also, in the next section how this accumulated surplus may be combined with payments for annuities in such manner that the insurance and the

annuity mutually reinforce each other. In this plan term insurance and annuity are conceived of as two parts of a single scheme of life protection adapted to men whose economic situation is that of the college teacher.

Term insurance has not been popular with life insurance companies for several reasons. In the first place the commissions are small, and the agents do not care to push them. Secondly, men will not purchase deferred annuities to be realized in a distant future. The ordinary man who takes term insurance does so under some business pressure. He may be in debt and wish to protect his creditors for a period of years, and therefore takes out insurance for this period. Such men are poor risks. The insurance men find by experience that those who have taken out term insurance rarely understand that they cannot renew it when it expires except at a higher rate, and are therefore disappointed and often angry. As the actuary of one of the largest insurance companies has put the matter, "To sell term insurance one needs an unusually intelligent set of policy-holders."

Whether the Association shall offer ordinary life policies is a matter to be determined later. For the present it seems wise to adhere to the simple program of a term life insurance policy, supported at the time of its expiration by a paid-up annuity. The two things not only supplement each other, but mutually support each other, and together they meet the capital hazard of the teacher's calling at a minimum cost, since he pays for insurance during that part of his life when it is cheapest, and he pays for an annuity for that period when a given sum will secure the largest annual income.

In connection with the statement of the plan and scope of the proposed insurance agency, a word may be said as to the attitude of the insurance companies upon the proposed plan, and the criticism of the insurance actuaries as to its details.

The attitude of the companies and of their representatives has been all that could be desired. The comments upon the plan have generally recognized its advantages, and the saving effected for the policy-holder. The large companies realize that this business is not one which they particularly desire, and are quite willing to see an agency started whose function, while dealing in insurance, is different from that of a commercial company. They have been most friendly in offering coöperation, and in giving the results of their own experience.

Only two objections to the report have come from the actuarial authorities of life insurance companies.

In one case objection was made to the intimation contained in the bulletin that the legitimate function of life insurance has been somewhat obscured by the activities of the insurance companies and their agents in commending unduly policies which carried large commissions, and also to the criticism that the imposed load had in some cases made life insurance unnecessarily expensive.

It is perhaps to be expected that there should be some sensitiveness on the part of life insurance representatives in these matters. Nevertheless it still remains true that life insurance needs to be considered from time to time from some point of view

other than that of the man who sells it. Life insurance as a commodity to sell, and life insurance as a device in civilization whereby the risk of the individual is in part borne by the coöperation of many, may be very different things. The true function of life insurance needs to be continually brought to the attention of the public, and while the reforms of the last ten years have placed life insurance in the United States upon a far more wholesome basis, this does not wipe out the history of the preceding fifteen years.

Only one complaint of a definite sort has appeared in reference to the statements concerning insurance made in the bulletin. This came from the actuary of a company whose principal business is the selling of endowment policies. It referred to the bulletin as an attack upon endowment insurance.

It requires but a glance at the bulletin itself to show the mistake of this view. In no respect was endowment insurance as such attacked. It was shown, however, that endowment insurance was not that form of insurance adapted to the needs of a man upon modest salary, who has a pension guaranteed to him if he lives to a certain age. To a man so circumstanced insurance as an investment offers meagre returns. Two reasons influence teachers in the purchase of such policies, outside the solicitations of the agent. The first is that by binding himself to a fixed obligation of definite amount each year, the teacher forces himself to save money. The second is that an endowment policy is a convenient security upon which to borrow, a circumstance which too often results in defeating the purpose of insurance. The endowment policy does not meet the need of legitimate insurance for men circumstanced as are teachers. This is no criticism upon companies which sell this form of insurance, but it illustrates the fact that the selling point of view in life insurance does not always conform to the interest of the buyer.

The criticism, so far as it undertook to compare the results of term insurance as here offered with those obtained in the last thirty years from endowment policies, was entirely misleading.

Annuities

An arrangement by which annuities may be provided at the smallest cost consistent with security, and in conformity with legal requirements, is not so simple as that of insurance. But it is readily understood if taken up step by step.

Let us begin with the simplest case: that of a teacher who desires to purchase a deferred annuity of $1000 a year, to begin at age 65 and to be paid in monthly instalments. Under this arrangement all obligations of the insurance company cease at the death of the annuitant, whether this occurs before or after 65. It is, therefore, the cheapest form of annuity possible. If an applicant wishes to purchase such a contract of an insurance company, the law requires that the cost be calculated upon the basis of the McClintock Mortality Table and 4 per cent interest. The reader who is

unfamiliar with insurance will be interested to note that when he buys a life insurance contract the law compels the use of one table of mortality, and when he buys an annuity it compels the use of another—in each case the more expensive. The cost of such an annuity under the legal conditions is shown in the following table. No cost of overhead charge is included, but simply the cost of the annuity at the legal mortality risk and interest rate:

TABLE I

COST OF $1000 ANNUITY PAID MONTHLY TO BEGIN AT AGE 65

Age of Beginning Premium Payment	*Annual Payment*	
	For Males	*For Females*
25	$55.20	$74.90
30	74.10	98.80
35	101.60	133.00
40	143.30	184.10
45	210.80	265.60
50	331.60	408.50
55	589.70	712.00
60	1,407.60	1,658.60
64	8,157.80	9,412.00

To illustrate by an example taken from this table. A teacher at age 25 could contract for an annuity of $1000, to begin at the age of 65, upon the basis of an annual payment of $55.20. He could purchase the same annuity on his 64th birthday by a single payment of $8157.80.

In either case, when he dies, all obligations of the company under the contract cease. About half of the men who enter at 25 will die before 65, and the money they have paid will go to help provide the annuities of their longer-lived contemporaries.

This illustration may serve to illuminate a distinction between the purchase of a life insurance policy and that of a deferred annuity, which is seldom brought out. The purchaser of insurance desires his contract immediately. He may die to-day and needs, therefore, the protection of his policy at once. He must therefore pay premiums in life insurance upon the higher rate demanded by the legal mortality table, and the low rate of interest. If he lives, some of the surplus may be returned to him in the form of dividends or added insurance. If he dies prematurely, his contract has been a profitable one in any case.

The case lies quite otherwise with a deferred annuity to mature at the end of thirty or forty years. In the first place, the purchaser does not want the present protection of the annuity, but he desires it at a fixed time in the future. He cannot know thirty years in advance just what kind of annuity contract could suit his needs at the age of 65 or 68 or 70. His wife may not be living at that time. His children are likely to be self-supporting. He may desire to have as large an annuity as possible to last out his own life.

On the other hand, the situation of those dependent on him might make it desirable

to take a smaller annual income, extending over a longer time, and involving the repayment of the entire accumulation. In any case, it is to his advantage to postpone to his day of retirement the decision as to the kind of annuity he purchases.

The financial argument, however, is still stronger. If the teacher makes a contract at age 25 with an insurance company for a deferred annuity to begin at 65, he is obliged under the law to make this upon the basis of a rate of interest much lower than that which is earned by conservative insurance companies and other agencies which hold trust funds. But the cost of a deferred annuity depends directly on the rate of interest at which the money is invested, and for the man who begins early in life the annuity he can purchase for a given annual expenditure will differ enormously according to whether he gets 3½ or 4½ per cent on his money. The difference is set forth in the following table:

TABLE II

COST OF A DEFERRED ANNUITY OF $1000 TO BE AVAILABLE AT AGE 65

Age of Beginning Payments	*Annual Payment on a 3½ per cent basis*	*Annual Payment on a 4½ per cent basis*
25	$65	$46
30	86	63
35	115	88
40	160	127
45	231	190
50	358	305

It goes without saying that as the limit 65 is reached the two tend to equalize, but for men below 40 (including the great mass of those who will purchase annuities) a low rate of interest means a greatly increased annual payment to provide a given annuity. If, therefore, deferred annuities are to be secured on advantageous terms for the teacher, some arrangement must be made under which he can postpone the decision as to the exact form of annuity until he comes to use it, and under which he may have the benefit of the current rate of interest earned upon good securities.

With this explanation let us now turn to consider the forms of annuity policies offered by the Teachers Insurance and Annuity Association.

The one just described—an annuity upon the life of the teacher to begin at a stated age and to cease at his or her death—is the simplest and cheapest annuity that can be offered. It is a form of annuity which men or women having no dependents may care to use. But the great majority of men who teach in American colleges are married, and are fully as much concerned to protect their wives against dependence in old age as to protect themselves. Furthermore, experience has shown that participants in a contributory system will in the long run demand that each account stand on its own feet. A man who has accumulated ten thousand dollars by annual savings is seldom willing to invest this in an annuity which may terminate in a month or a year, leaving a surplus to balance the extra expense due to some long-lived contemporary.

In general men prefer a somewhat more expensive form of annuity, carrying a provision for a return of unexpended surplus.

Assuming, therefore, that deposits have been made over a series of years with the Teachers Insurance and Annuity Association, and that they have accumulated at the rate of 4½ per cent, the teacher may at age 65 (or later) elect to buy from the Teachers Insurance Association an annuity upon any one of the following plans:

I. An annuity upon the life of the teacher alone, the annuity to terminate at his or her death without further obligation on the part of the Association.

II. An annuity upon the life of the teacher alone, the surplus left after his or her death to be returned to his or her heirs in annual payments.

III. An annuity upon the joint lives of the teacher and his wife, the widow of a teacher to receive one-half the annuity which her husband had received, all obligations of the company to be fulfilled upon the death of both annuitants.

IV. An annuity upon the joint lives of the teacher and his wife (the widow to receive one-half the annuity paid to her husband), the surplus left after the death of both husband and wife to be returned to their heirs in annual payments.

Before giving the annual payments at various ages necessary to accumulate an annuity of $1000 under these options, it is worth while to note how completely these provisions for insurance, savings deposit, and annuities meet the risks of a teacher's life, in contrast with the present lack of systematic provision or as compared with the advantages of the present Carnegie pensions. This will be realized by considering for a moment what happens in the life of the typical college teacher so far as these life hazards are concerned.

If a thousand teachers start as instructors at the normal time of life, one-half of them, roughly speaking, will die before the pensionable age. Their widows or dependent children would receive under this plan the insurance plus the accumulations to the credit of the teacher in the Teachers Insurance and Annuity Association, coming from the annual payments of himself and his college. Of the remaining five hundred teachers over one-half will, for one reason and another, drop out of teaching. The cases of such teachers would be covered by specific rules. If below a given age—perhaps 35—their insurance would be canceled and their accumulations returned with savings and interest. If their participation had lasted a sufficient time to make their entry in some other insurance and annuity plan difficult, they would be permitted to continue their participation at their own expense, but without sharing thereafter in the benefits of the college or of the Carnegie Foundation.

A minority of the one thousand, embracing perhaps twenty per cent of those who started as instructors, will still be teaching at 65, and will desire to protect themselves and their wives against the risk of dependence in old age. Such a survivor will have to his credit in the Teachers Insurance and Annuity Association a sum of money sufficient to purchase an annuity for himself (if his wife be dead), or a joint annuity

for himself and his wife, if she be living, or a smaller annuity with a provision for the return of any unused surplus in case his circumstances indicate this as desirable. In other words, under this arrangement a teacher not only receives the maximum rate of interest consistent with safety, but he postpones until the age of retirement the decision as to the form of annuity which will meet his wants. His decision, however, at his entry upon the contributory plan, or in subsequent increments, will fix the amount of his monthly or yearly contribution, and will determine, therefore, the sum to his credit in the custody of the Teachers Insurance and Annuity Association when he comes to age 65. For example, assuming that he began at age thirty a monthly contribution of $5 and continued this to age sixty-five, and assuming that his college contributed a similar amount, there would then be to his credit at sixty-five $9998, assuming interest accumulation at 4½ per cent. On plan I this would purchase an annuity of $1099, on plan III an annuity of $874, and on plan IV an annuity of $781.

To understand the rates which are given in the following tables, certain details need to be kept in mind. First, these rates are computed on the assumption that in typical families the wife is five years younger than her husband. In actual practice the rate in each case would be computed upon the actual ages of husband and wife when, upon his reaching 65 or some later age, he was ready to purchase an annuity. The embarrassing rule, now in existence, which does not pension a teacher's widow unless she has been ten years his wife, would not be necessary. The aged teacher who marries a young wife would simply bequeath to her a smaller pension based on her own life expectation.

One word also may be said at this point as to the manner in which the insurance and annuity features of this plan support each other. Nothing is more characteristic of the makeshifts that have existed in life insurance than the fact that the law requires one mortality table when a man buys insurance and another when he buys an annuity. Now neither of these mortality tables fits the life experience of the teacher, altho we shall not have the complete data for a teachers' mortality table for a number of years. But under the proposed plan, which combines insurance with an annuity beginning not sooner than 65, the business of insurance and annuity-writing support each other. A low rate of mortality which raises the cost of the annuity makes the insurance contract profitable and *vice versa*. The man who dies before 65 does not draw an annuity and he who lives beyond his insurance period does not cash in his insurance. The surplus which will in time accumulate will be used to diminish the cost of both insurance and annuity, and the Foundation will employ its large resources to provide to teachers contracts for both insurance and annuities under the most favorable conditions and with entire security. Furthermore these facilities will be open to the great body of college teachers.

Having in mind these explanations, which have been made in full in the effort to make clear a matter which is in itself simple but which necessarily deals with a num-

ber of details, we turn now to the actual methods by which annuities are to be provided. And in this connection it is to be noted that while the writing of insurance and of annuities is to be done by the same company,—the Teachers Insurance and Annuity Association,—the payments of insurance and of annuities are to be kept entirely independent. It is assumed that insurance is a matter for the individual, that the annuity is a matter in which both the teacher and his college have an obligation.

Option I

At age 65 (or later) the accumulated reserve of any teacher may be devoted to the purchase of an annuity on the life of the teacher alone, to terminate at his or her death, without further obligation on the part of the Association.

Option II

The same life annuity as in Option I, with the additional guarantee that, even tho the teacher dies early, the full amount accumulated will be returned in instalments to his estate.

Option III

At age 65 (or later) the accumulated reserve may be devoted to the purchase of an annuity on the joint lives of the teacher and his wife (the widow of a teacher to receive one-half the annuity which her husband had received), all obligations of the Association to cease upon the death of the last annuitant.

Option IV

At age 65 (or later) the accumulated reserve may be devoted to the purchase of an annuity upon the joint lives of the teacher and his wife (the widow to receive one-half the annuity paid the husband), with the further provision that the total amount accumulated will be returned in instalments to the estate of the survivor.

Under the laws of New York the minimum rate at which annuities are sold by an insurance company is upon the basis of the McClintock Mortality Tables and 4 per cent interest.[1] Under these legal requirements a teacher at 65 would need to have in hand $8804.20 in order to purchase a life annuity of $1000. Under Option II $10,640.20 would be required. If he desired at 65 to purchase a life annuity of $1000 under Option III (assuming his wife to be five years younger than himself), he would need to have in hand $10,999.90. Should he desire to purchase a life annuity of $1000 a year under Option IV, he would need to have in hand $12,180.60. It will be of course understood that these annuities could not be purchased at such rates from any insurance company. They represent merely the minimum net cost without the overhead charge. The annual payments to produce these sums are shown in the following tables,

[1] By an amendment of the law passed in 1917.

assuming that they are deposited in the Teachers Insurance and Annuity Association and accumulated at 4½ per cent.

TABLE III

Option I

ANNUAL PAYMENTS NECESSARY TO PROVIDE A $1000 ANNUITY ON THE TEACHER'S LIFE ALONE, TO BEGIN AT AGE 65 (MALE LIFE)

Age of Beginning	*Annual Payments*
25	$80.46
30	105.67
35	141.16
40	193.24
45	274.52
50	414.36
55	700.83
60	1,574.19

TABLE IV

Option II

ANNUAL PAYMENTS NECESSARY TO PROVIDE AN ANNUITY ON THE FOLLOWING TERMS: ON THE TEACHER'S LIFE ALONE TO BEGIN AT AGE 65 (MALE LIFE), ANNUITY FOR $1000 PER ANNUM. $10,500 IN INSTALMENTS GUARANTEED

Age of Beginning	*Annual Payments*
25	$97.24
30	127.71
35	170.61
40	233.55
45	331.78
50	500.78
55	847.00
60	1,902.46

TABLE V

Option III

ANNUAL PAYMENTS NECESSARY TO PROVIDE AN ANNUITY ON THE FOLLOWING TERMS: TEACHER 65, WIFE 60, ANNUITY $1000 TO TEACHER, $500 TO WIDOW ALL PAYMENTS TO CEASE ON DEATH OF BOTH ANNUITANTS

Age of Beginning	*Annual Payments*
25	$100.53
30	132.02
35	176.38
40	241.44
45	342.98
50	517.70
55	875.62
60	1,966.80

TABLE VI

Option IV

ANNUAL PAYMENTS NECESSARY TO PROVIDE AN ANNUITY ON THE FOLLOWING TERMS:
TEACHER 65, WIFE 60, ANNUITY $1000 TO TEACHER, $500 TO WIDOW
$12,000 IN INSTALMENTS GUARANTEED

Age of Beginning	*Annual Payments*
25	$111.39
30	146.29
35	195.42
40	267.53
45	380.04
50	573.63
55	970.23
60	2,179.32

To make the matter clearer, we may approach the question from another angle. Assume that $100 a year is paid into the Association to the account of a given teacher. This payment would be shared between the teacher and his college, tho not necessarily in equal parts. But no matter whence drawn, the $100 placed in the reserve each year will be available for two purposes: (1) for the relief of the teacher's family in case of his premature death; (2) for the purchase of an annuity in the event that he is still living and teaching at age 65. The following table shows the accumulations at various ages and the annuity possible under each option at age 65. From this table any one interested can easily compute the possibilities from annual contributions of any amount.

TABLE VII

RESULTS FROM AN ANNUAL PAYMENT OF $100

Age of Beginning Payments	Cash value of accumulated savings in case of death at ages given below					Annuity purchasable at 65			
	25	35	45	55	65	*Option I*	*Option II*	*Option III*	*Option IV*
25	—	$1,256.27	$3,207.13	$6,236.93	$10,942.03	$1,242	$1,028	$994	$897
30	—	559.28	2,124.82	4,556.03	8,331.63	946	783	757	683
35		—	1,256.27	3,207.18	6,236.93	708	586	566	511
40			559.28	2,124.82	4,556.03	517	428	414	373
45			—	1,256.27	3,207.18	364	301	291	263
50				559.28	2,124.82	241	199	193	174

To complete the information a teacher may desire, one other table is added. The majority of teachers are not ready to retire at 65. A teacher in love with his work and in good health ought to be in a position to render his highest service at this age. The following table shows the annuity purchasable at different ages of retirement, assuming $100 a year is paid to the Fund, beginning at age 30 and continuing to

65. The payments then cease, but if the teacher is strong and in good health, he may prefer to keep up active work for some years longer, since his reserve increases rapidly with each added year, and serves to protect those dependent on him in case a larger income is needed. On the other hand, the teacher may have other income, and prefer to remain in teaching and allow his accumulation to increase as a form of life insurance. He has, in other words, the great advantage of choosing, at the time when the annuity is to be paid, that disposition of his accumulation which suits the circumstances of his situation.

TABLE VIII

RESULTS OF AN ANNUAL PAYMENT OF $100
BEGINNING AT AGE 30 AND CEASING AT AGE 65

Age of Retirement	Cash Sum Available	Annuity Purchasable					
		Option I	*Option II*		*Option III*	*Option IV*	
			Cash Sum Available	*Years Payment Guaranteed*		*Cash Sum Available*	*Years Payment Guaranteed*
65	$8,331.63	$946	$783	10½	$757	$683	12
66	8,706.55	1,025	840	10	816	734	11½
67	9,098.35	1,113	904	10	880	784	11½
68	9,507.78	1,209	972	9½	950	844	11
69	9,935.63	1,316	1,046	9	1,028	901	11
70	10,382.73	1,434	1,127	9	1,112	973	10½
71	10,849.96	1,564	1,216	8½	1,206	1,057	10
72	11,338.21	1,709	1,312	8½	1,308	1,124	10
73	11,848.43	1,869	1,418	8	1,422	1,218	9½
74	12,381.61	2,048	1,534	8	1,547	1,321	9
75	12,938.78	2,246	1,660	7½	1,685	1,414	9

THE FOUNDATION AND THE ASSOCIATION

It may be well at this point to make clear a distinction which has been in some measure obscured in the preceding discussions; namely, the distinction between the Carnegie Foundation and the proposed agency, the Teachers Insurance and Annuity Association.

The Carnegie Foundation was established under the authority of Congress to take in trust certain funds, and to use the income thereof to "provide retiring pensions" and "to do and perform all things necessary to encourage, uphold and dignify the profession of the teacher and the cause of higher education within the United States, Canada and Newfoundland." Its trustees may in their discretion by a two-thirds vote drop the activities they are for the present carrying, and may devote the income in their hands to other purposes, providing these are along related lines.

The Foundation will never depart from the field fixed by this charter. It must always spend its income (amounting at present to some $800,000) in the effort to encourage, uphold, and dignify the profession of the teacher.

For many years to come—certainly for a generation—it will doubtless continue to maintain a list of associated institutions, to whose teachers the bulk of its funds will be paid. In any case, the Trustees of the Foundation must administer its income for the benefit of teachers and of the profession of the teacher. They may decide to spend some of this income in enabling the Teachers Insurance and Annuity Association to carry out its purpose, but whatever they may decide to do with the income of the fifteen millions of endowment, it must always be expended in the interest of the teacher in the United States, Canada, and Newfoundland. In the past the trustees have expended this income under rules which directly benefited only a small minority of the teachers in the United States and Canada and practically excluded teachers in Newfoundland. So long as the income of the Foundation is spent for direct payment of retiring pensions, no other form of distribution is feasible. The direct contribution of $800,000 annually to pensions in the three countries would be insignificant in any one case if distributed among the forty thousand college teachers of these countries. Under such circumstances the minority included in the benefits are practically unanimous in approving the present arrangement: the majority not included view the situation in a different light. However this may be, the Trustees of the Carnegie Foundation may dispose of their trust as may seem wise to them. They have already incurred certain obligations. In the discharge of these obligations their income for a generation to come will be used in providing a generous system of pensions in a limited number of institutions. The essential point is that this income must for all time be held in trust for the benefit of the college teachers of these three countries, and must be used in such manner as may in the judgment of the trustees best serve these purposes. No change of the function or purpose of the Carnegie Foundation is contemplated.

Meantime a larger question than the payment of pensions in a limited number of colleges awaits answer. A growing army of young men is recruited every year to fill the ranks of college teachers. Each man who contemplates the teacher's life must face at its beginning the question, How can I protect my family and myself against the risks incident to a small, fixed salary? The Teachers Insurance and Annuity Association is the answer to this question.

But the Teachers Insurance and Annuity Association, unlike the Carnegie Foundation, is not, in the eyes of the law, a charitable agency. It is organized under the laws of New York, and is responsible in the matter of resources, capital, surplus, and all other business to the Insurance Department. It differs from a commercial insurance company in one respect only—the capital to conduct it and to pay all overhead charges is furnished thru the Carnegie Foundation, so that the teacher may obtain his insurance and his annuity policy at net cost.

But there is this further distinction between the Foundation and the Insurance and

Annuity Association to be kept in mind. The latter is a legal agency for writing insurance and annuity contracts for college teachers. Such an agency must extend its facilities widely to the teachers of these three countries if it is to serve its larger purpose. The Carnegie Foundation in its list of associated colleges may continue to make such distinctions as it believes to be wise. It may discriminate between colleges on the basis of sectarian control. No such discrimination should be exercised in the case of the Insurance and Annuity Association. So long as the insurance is confined to college teachers the question, What is a college? must continue to cut some figure in deciding what institutions and what teachers shall be invited to avail of its facilities. Men entering college teaching to-day prepare themselves by a long course of training. Such men are to be found in the weakest as well as in the strongest colleges. Both to colleges and to teachers the Teachers Association must present the open door, applying only such limitations as are clearly justified in carrying out its own purposes, and the principles upon which it is established.

In a word, the Carnegie Foundation remains what it has been in the past. It doubtless will continue for a generation and perhaps for the indefinite future a growing list of associated institutions; it may discriminate as its trustees may approve or as its charter may direct. It is a philanthropic agency which assumes no legal obligations inconsistent with its charter.

The Teachers Insurance and Annuity Association, on the other hand, is an insurance company, doing business under the scrutiny of the state. It is not engaged in general insurance, but only in the insurance of teachers and for the present of college teachers. It needs to apply only such restrictions as may confine its policy-holders to those who are trained college teachers and to colleges which are such in fact. The new agency does not in any way affect the obligations of the Foundation to the teachers of English-speaking North America, nor does its creation affect any privileges or just expectations which may have been established by the Trustees of the Foundation.

It does stand for two things which the Foundation as originally organized did not stand for — first, a contributory pension system, in which the obligations of the teacher and the college corporation are frankly faced; secondly, for a relief plan so comprehensive that it may give to the great body of teachers secure and adequate protection against their life risks. While, therefore, the institution of this new agency does not change the obligations or the functions of the Carnegie Foundation, it does commit the Foundation to a different conception of the social philosophy involved in a pension plan. It defines the ground on which pensions are justifiable and commits itself to the principle that society does best for the individual when it sets up the machinery by which he may work out his own salvation, rather than when it attempts to make salvation free.[1] The by-products of a free pension do not make for individual

[1] President Hadley in his *Economics*, pages 62, 63, calls attention in the following admirable statement to the widespread notion that the pension is an end in itself, regardless of who pays for it, how much it costs, and its social by-products:

"A certain section of the public is so dazzled by the prospect of pensions that it overlooks the true ground on

or for social betterment. Disability pensions to those whom misfortune has overtaken will in time be the only free pensions to be justified.

American and Canadian teachers approve by an overwhelming majority the principle of the contributory pension—not merely because it carries the security of a contract, but because it conserves the independence and the freedom of the teacher.

THE TEACHER'S OBLIGATION TO HIS FAMILY

The information given in the preceding pages will enable any one interested to understand both the completeness of the protection here presented and also the security thrown around the business of insurance and annuities. It remains still to show somewhat in detail, what the cost to the teacher for insurance and the cost to the college and the teacher for an annuity will amount to.

This involves not only assembling the figures for the annual cost of insurance and annuity upon some assumed basis, but it means also some assumption as to how much of his income a teacher living upon a modest salary ought to devote to the protection of himself and his family. This is a difficult and complicated question to answer. The information furnished by the teachers in the associated institutions, in reply to our enquiry respecting insurance, shows that teachers need some awakening as to their own obligations in the matter of insurance. About one-fifth of all those who answered carried no life insurance, and those who did carry insurance provided, on the average, a protection amounting to only a little more than a single year's salary, a situation not differing greatly from that among railway employees. This situation is the result of a number of causes—lack of the sense of obligation, lack of knowledge concerning insurance, its high cost, the general weakening of the habit of thrift among all classes of Americans, the cost of living, are some of these causes. If American college teachers are to carry a protection for themselves and their families approaching what is needed, some clear realization of the opportunities here afforded as well as of their own obligations must be generally realized.

which pensions are justified. It comes to regard the pension as an end in itself rather than as a means of relieving the general funds of the government of a burden. Schemes are already proposed in England for giving a pension to every one above a certain age, independent of any contribution which he may have made. People are impressed with the advantages of a pension and with the difficulties of every special system of contribution for securing it. They therefore propose to transfer the burden of such payments to the general tax account. They do not see that three-quarters of the arguments for pensions are based upon their usefulness in lightening the claims upon this general account, and that a system which increases these claims undermines the very grounds on which it is advocated. It is sometimes argued that the total amount of these claims is not really much increased by the adoption of a liberal pension policy; because, pensions or no pensions, society must in the last resort support the aged who have worked out their usefulness, and no harm can be done by recognizing as a right on the part of the individual what society already recognizes as a duty. But this is an unsound position. There are certain things which society must do in justice to itself, which it cannot safely allow individuals to demand in justice to themselves. If you give every man a right to a pension when he is incapable of self-support, you tacitly approve his failure to provide for himself and his children. That the necessary degree of production and of economy by the community as a whole would be maintained if such a point of view were adopted, seems highly improbable. We need measures which shall increase individual responsibility rather than diminish it; measures which shall give us more self-reliance and less reliance on society as a whole. We cannot afford to countenance a system of morals or law which justifies the individual in looking to the community rather than to himself for support in age or infirmity."

How much protection in the form of insurance and annuity ought a teacher to attempt?[1]

This question must be answered by each individual, but an example of the typical experience may be had by using the customary salary scale and assuming a contribution of 5 per cent both from the teacher and from the college toward the annuity. The annuities produced under this assumption under the four options already described are indicated in the following table. They are comparable with those of those now paid under the existing rules. The computation is not carried beyond age 45 for the reason that in the typical curve the teacher reaches the full professor's salary at that age. It is further to be assumed that a college will limit its contribution to 5 per cent of the normal salary, or to participation in a pension not greater than an assumed maximum.

In the matter of insurance only an arbitrary assumption can be made. Teachers carry on the average an insurance equivalent to a little more than one year's salary. In the Presbyterian Minister's Fund, which offers insurance at extremely low rates, the average policy is $1600. Teachers who have been carrying on the average insurance equivalent to one and a half the annual salary will not, even on these favorable terms, carry five or six times the amount formerly provided. What one may hope for is a better realization of the obligation to protect one's family, a more systematic effort to provide that protection, and a more intelligent use of insurance as an agency to that end. It is assumed in the following table that the teacher will carry insurance to approximately three times his annual salary. In actual practice he would vary this load so as to have some of the insurance terminate at 60, some at 65, and some at a later age. It is assumed for simplicity that the insurance is all taken out to end at age 65.

[1] According to the income-tax returns quoted by the *Report of the Royal Commission on Superannuation in the Civil Service*, London, 1903 (pp. viii f.), British civil servants whose salaries exceeded £160 supplemented the provision for old age secured thru the State pensions by the following voluntary payments for life insurance:

Number Reported	*Salary*	*Average Salary*	*Percentage paying Insurance*	*Average Payment for Insurance*	*Percentage of Salaries paid for Insurance*
11,827	£160 to £400	£247	74	£11 6 *s.*	4.6
1,075	400 to 500	436	78	25 4	5.5
1,104	500 to 700	597	73	35 2	5.9
748	over 700	950	66	65 10	6.9
14,754		£321	74	£16 12 *s.*	5.2

TYPICAL EXPERIENCE OF A TEACHER BEGINNING AT AGE 30

IN A SMALL COLLEGE

Age of Teacher	*Salary*	*Insurance*	*Annual Cost of Insurance*	*Percentage of Salary spent for Insurance*	*Annuity Contribution 5 per cent of salary paid by teacher and duplicated by college*	Annuity Available at 65			
						Option I	*Option II*	*Option III*	*Option IV*
30	$1,300	$4,000	$48.36	3.7	$65	$1,230	$1,013	$984	$888
35	1,600	5,000	61.75	3.8	80	1,442	1,192	1,154	1,041
40	2,000	6,000	76.84	3.8	100	1,648	1,368	1,319	1,190
45	2,500	7,000	94.21	3.7	125	1,830	1,513	1,464	1,321

IN AN INSTITUTION OF MEDIUM SIZE

30	$1,500	$4,000	$48.36	3.2	$75	$1,419	$1,174	$1,136	$1,024
35	2,000	6,000	75.14	3.7	100	1,773	1,469	1,418	1,278
40	3,000	8,000	105.32	3.5	150	2,290	1,895	1,833	1,652
45	3,500	10,000	140.06	4.0	175	2,472	2,045	1,978	1,783

IN A LARGE INSTITUTION

30	$2,000	$6,000	$72.54	3.6	$100	$1,892	$1,566	$1,514	$1,367
35	3,000	8,000	99.32	3.3	150	2,600	2,152	2,080	1,878
40	4,000	10,000	129.50	3.2	200	3,119	2,580	2,494	2,251
45	4,500	12,000	164.24	3.6	225	3,299	2,730	2,639	2,382

The program of a contributory system of deferred annuities (or pensions) rests on the assumption that a good beginning is made in early life. The cheapness of the German industrial pensions arises out of the fact that the young apprentice begins to accumulate his old age pension at seventeen or eighteen years. In the typical American college the teacher attains approximately the salary of the full professor between forty and forty-five. After that the level of salaries rises but little, altho individual exceptions are made.

A flat percentage contribution will not fit a salary schedule in which the pay is very low till the teacher reaches the age of 45 and which then receives large increases. In other words, to accumulate an annuity based on large salaries received during the last fifteen years of a teacher's life service, it would be necessary for both teacher and college to make far larger contributions. It has been assumed in putting forward this plan that the college would participate on the basis of the salary reached at about 45 years of age. This will involve, as has been shown, a contribution of approximately 5 per cent of the salary, and would never rise above this amount. If, however, a salary schedule is to be maintained which rests upon very low salaries to the age of 45 and large increases afterward, one of two things would be necessary. The college could confine its participation to 5 per cent of the salary schedule, in which case the pension would be smaller than 60 per cent of the maximum pay, unless the teacher himself decided to contribute a larger proportion of the increase coming to him late in

his career. On the other hand, a college which maintains low salaries for the first half of the teacher's service with large increases during the last half might treat pensions as deferred pay and contribute more than 5 per cent of salary during the first half of the service and less than this thereafter. The result would be larger pensions while still imposing a 5 per cent load on the salary budget.

The discussion of this matter will bring up without doubt some questionings as to wise and just proportion of college teachers' salaries. The difference in the two arrangements is shown in the following examples typical of existing salary schedules:

	Average Salary	
Age	*College A*	*College B*
30	$1220	$1426
35	1655	1705
40	2120	2195
45	3131	2309
50	3541	2558
55	4111	2750

The one salary has nearly doubled between 40 and 55, the other has changed by a little more than $500.

It is this situation which makes a contributory pension difficult for the German University professor. The pay of a privat docent is so meagre that until a teacher has reached a degree of distinction seldom attained till middle life, contribution to a pension system would be impossible. The same conditions make marriage extremely difficult. The question of the proportion of the salary to age and service is one which presents many difficulties. The need to get a running start in early life for the accumulation of an annuity is met in some of the pension systems for German teachers in secondary schools by the requirement that a considerable portion of the first year's salary be paid in at the beginning. The effect of such a payment at the outset and accumulating thru many years is of course very marked. It follows that not infrequently a young teacher who has a small sum to invest puts it into the annuity contribution. A few such payments in bulk naturally make an enormous difference twenty, thirty, or forty years afterward in the amount to the credit of the individual for the purchase of an annuity.

It is a common impression that all teachers' pensions in Germany are paid by the state. Most teachers in universities receive their support in old age in this way, but this situation is not true for the secondary and elementary school teachers. Prussia and Saxony, for example, offer non-contributory pensions to their teachers. Bavaria and Wurtemberg have contributory systems. The contribution varies from 1 to 4 per cent of the teacher's pay, with numerous variations as to the initial contributions. The discussion as to the relative merits of the two systems is a perennial subject at teachers' meetings.

One other matter related to the combination of term insurance and annuity has

been the subject of comment and needs an additional word of explanation. There is a somewhat widespread feeling that when one carries term insurance to age 65 or 66 some sort of incongruity arises by its termination at a definite age. More than one teacher has expressed it. "If I carry $10,000 term insurance and have accumulated $10,000 in the annuity fund, my estate is worth $20,000 the day before I am 65 and only $10,000 the day after." The fallacy in the statement lies in the assumption that the cash value of the term insurance policy is worth $10,000. The cash value of the policy is worth only the face value multiplied into the probability that it will be paid. At age 64 the cash value is less than $100. At 65 it has become zero. But this discrepancy is inherent in all life insurance. The man who takes out an ordinary life policy for $10,000 will make money for his estate by dying at once. If he lives to old age, he will have paid out for the policy more than it is worth. No plan can be invented under which the estates of those who survive can profit by life insurance to the extent of those who die early. The man who carries term insurance up to the day when his annuity has accrued has lost nothing by that arrangement. The cash value of his policy has automatically diminished as he approached the end of his term.

On the other hand the individual who desires to do so can arrange his insurance so that part of it matures at 60, part at 62, part at 66, part at 68. He can step it down by any sort of arrangement he may prefer. In this way he may gradually transfer his insurance contribution to his savings accumulation. The elasticity of the plan is such that the individual may make any sort of combination as between insurance and annuity. The figures suggested in these tables are those which the circumstances of the typical teacher's life suggest as best suited to his needs. In the ordinary family it will be wise to carry considerable insurance up to the age of 65. In case of death the education of children is then provided for. In case of survival the teacher will not, as a rule, need to consider dependent children. In any case the individual is able to make such combination of insurance and annuity as in his judgment best suits his own need and that of his dependents. This is one of its chief advantages to the teacher.

THE FUTURE OF THE TEACHING PROFESSION

Unless one has had the time and the patience to read the literature of old age pensions and of social insurance, he can scarcely appreciate at its full value the significance to the teaching profession of the plan of insurance and annuities proposed in the foregoing pages. Nor can one without such background appreciate the far-reaching influence which the adoption of such a régime will exert upon the teaching profession. In the process of assimilation into the program of the teacher's profession it will affect not merely the comfort or dependence of himself and his family, but it will profoundly influence the choice of the teacher's profession, the character of the salary schedule of the colleges, the rate at which the salary will vary with age and experi-

ence, and the relation between the government of the college and the teaching body. These are not to be realized to-day or to-morrow. The social effect of such a plan needs a generation to reveal it. Men must be part of a political or social régime for many years in order to come to political or social consciousness. The political and economic history of every country illustrates this truth, but it is not so evident that the plan of organization of the teaching profession here proposed—for it is nothing less than this—carries with it such consequences. It is worth while to spend a moment in the effort to visualize this process, for we are taking the first steps in an organization of the teaching body of English-speaking North America which, when it becomes incorporated into the profession of the teacher and into the college administration, will in large measure determine the quality and the aims of the teacher and his college.

Let us realize in the first place that this proposal concerns the teachers and the colleges in the United States, the Dominion of Canada, and Newfoundland. In these three countries there are approximately forty thousand college teachers.

The conditions of pay and of tenure of place in institutions in which these teachers work vary enormously, but as the various states and provinces become older and more prosperous, they tend constantly toward a certain ideal. Another generation will see, not a uniformity of educational institutions,—this is not desirable,—but a general approximation to uniformity of economic and educational recognition of the teacher's service. What the teacher may expect, what are his rewards, what are the certainties and what the possibilities of his profession will be more evident as these three countries approximate the stage of population of Europe. And there must be reckoned with a spirit of democracy different from the European conception, a difference which we too often forget in comparing the social forces of the old continent with those of the new. This means that there must be worked out an organization of the teaching profession for North America which shall secure to the teacher the highest possibility of reward coupled with the greatest measure of personal freedom. The organization which is here suggested is planned to fulfil to the highest limit these conditions.

The first and perhaps the most vital interest with which these three countries are concerned is so to organize the conditions of service in colleges that able men may be attracted to this profession in choosing their vocation. The time at which this inducement must be strong is when men are young. Now and again able men come late into the teacher's life. But the profession must make its appeal to men when they choose their vocations, if it is to draw to it a fair proportion of the brains and the energy of the race.

The Carnegie Foundation was instituted with the noble purpose of contributing to this end. It has made a notable contribution. But its Founder had in mind something far larger, far more important, than can be effected by the removal of old age dependence in a limited number of institutions. He hoped that in time there would come out of his gift that which would make the profession of the teacher in this new

continent attractive to the best men. This can be done only by organizing the whole body of teachers upon a basis which offers both security and freedom; which leaves on the teacher's shoulders the responsibility which belongs to him as a man, but which offers him at the same time the social and economic machinery by which the responsibility may be met, and in whose administration he has a voice. Security and freedom are the essentials of such an organization of the teaching profession.

Whence are the able men to be drawn into the teaching profession, and what are the inducements to an ambitious, able American or Canadian or Newfoundlander to turn from the call of business or of the law to that of the teaching profession?

The process will no doubt be slow. To-day the drift is away from the college. But if ever it is to be toward it, the opportunities and rewards of the life must be open to the ambitious man whether he begin in one college or another, whether he start in Alberta or California. He must get some thrill of consciousness that he is joining a brotherhood which reaches from the Arctic to the Gulf of Mexico, that every college in all this region is to be a door thru which one may enter into this association. No one can tell whether the able man may enter by way of Texas or New York or Winnipeg. The call to the man must come not from a college but from the life, a life which offers no big prizes in money, but has security, honor, and freedom.

How far will security weigh in the minds of able men against the money prizes? That is hard to say. Time will be needed before it will count appreciably, but security is the only balance of a material sort which the teaching profession can set off against the money prizes. Men are paid as much as a million dollars a year in a few cases in America. Salaries of one hundred thousand dollars a year are not uncommon. A great organization thinks nothing of paying twenty-five thousand dollars to its vice-presidents or assistant managers. Is it possible to fix the eyes of able men upon the teacher's opportunity amid the dazzle of such prizes?

Two things may be said. The present scale of industrial salaries represents a passing phase of corporation development. A million dollars a year paid to a man is not a salary. No legitimate business could support overhead charges of such a scale. The next twenty years will see such charges reduced to some scale proportioned to the value of the service rendered. But the time will never come when teaching will hold out such prizes. In a material competition it offers a moderate salary with security, and to do this it must be organized.

This much further may be said. Security against dependence will mean more and more as these three countries grow older. Let any man approaching old age look back to his own beginning as a teacher. What would it have meant to him to be the member of a body in which he could secure his independence and that of his family at a cost within his reasonable ability to pay? We in North America still live in the conditions created by the development of a new continent. In the next generation business organization will undergo a continual transformation in which the tendency will be to substitute security for a part at least of the prize that has hitherto taken the form

of an exaggerated salary. As time goes on security will weigh more and more with able men in deciding a vocation, or rather one may say that the money prize will not be so powerful in drawing able men away from a vocation into which their intellectual and social powers would naturally carry them.

Hitherto there has been no organization of the teaching body by which it might secure some equivalent in security in competition with the larger prizes of professional and business life. The régime which is here set up undertakes to secure to the profession of the college teacher the benefits of social organization while leaving to him the largest measure of freedom. The full effects of such a régime cannot be seen until a generation has passed, but in the long run it will profoundly influence the teachers and the colleges, it will emphasize year by year the claim of the scholarly life with security and freedom as compared with any other, and more than all else it will operate in influencing able men to choose the teacher's calling. Something of all this was in the Founder's mind when this institution was started, but the method by which it was to be accomplished he left to his trustees to determine. The plan here put forward contemplates an organization of the teaching profession so planned as to secure in time the largest measure of security with the fullest freedom. Nothing short of this will permanently dignify and strengthen the teacher's calling.

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APPENDIX TO PART II

THE REPLIES OF THE ASSOCIATED INSTITUTIONS

THE REPLIES OF THE ASSOCIATED INSTITUTIONS

On February 24, 1916, there was sent to the president of each associated institution a package containing copies of the report concerning Insurance and Annuities for College Teachers, with the request that a copy be placed in the hands of each trustee and of each professor, that a free discussion of it be invited, and that the president of each institution transmit to the Foundation such criticisms and enquiries as might be offered.

At the time of the annual meeting on November 15, 1916, replies to this enquiry had been received from sixty-five institutions. Such of these replies as were in the form of resolutions adopted by the faculties or boards of trustees, or of statements of their action as given by the president, are printed below. These are fifty-two in number. In a few cases the presidents transmitted individual opinions from members of the faculty in the form of written statements, but without concerted action.

The remaining institutions have either made no reply or have asked for further time.

BELOIT COLLEGE

Statement of the President, March 31, 1916.

The proposed changes in the retiring system of the Carnegie Foundation have been discussed at a meeting of the Faculty of Beloit College after each member of the faculty had had an opportunity of reading your Confidential Report. The attitude of the faculty is one of entire sympathy with the changes proposed and of agreement with the positions taken in the Report. The faculty desire me to express their cordial concurrence in the new plan, subject to such modifications as your own final judgment may determine.

Naturally some questions were raised by members of the faculty which are not answered in the Report. One especially had to do with the policy the Carnegie Foundation might adopt in the case of members of the faculty whose health was not such as to make them good risks with the ordinary life insurance companies, but who might live for many years under the conditions of educational institutional life. They were interested to enquire whether such cases would be left outside the benefits of the new system. My reply was that I should think it probable the Carnegie Foundation would feel justified in dealing more generously with such cases than the life insurance companies can.

We appreciate very much the position taken in the Report, which assumes that the older men now on faculties of the Carnegie colleges will be retained upon the present basis, so as to have the expected retiring allowances in due time. It would seem most equitable and honorable that this course should be adopted by the Carnegie Foundation.

The Board of Trustees of Beloit College have had no meeting since the receipt of your letter of February 24. I have put into the hands of all of the members of the board copies of the Report, and I have received replies from a number of the trustees. These are favorable to the proposed plan. The following extract from a letter from Mr. Horace White, of New York City, may serve to express the tenor of these replies: "Under existing circumstances the Trustees of the Carnegie Foundation are bound to adjust their balance sheet to the coming situation and not to wait for its arrival. The only question is whether the plan sketched by Dr. Pritchett is the best one to meet the difficulty. It seems to me he has presented the problem in the most

lucid and impartial manner, and that his solution of it cannot be bettered. So far as I am qualified to give an opinion his plan rests on a sound economic basis."

BOWDOIN COLLEGE

The President, on May 12, 1916, in anticipation of a joint answer by the Faculty, which has not been received, transmitted letters from twenty-three members of the Boards of Trustees and Overseers,—seventeen in approval and three in disapproval of the New Plan, and three expressing no opinion.

BROOKLYN POLYTECHNIC INSTITUTE

Statement of the President, March 24, 1916.

A very careful study of the report on the new pension plan has been made by all the interested parties at the Polytechnic Institute. The whole matter has been regarded as of the greatest importance by the members of the faculty, and I have had personal interviews with nearly every member of the instructing corps. I am enclosing a brief summary that was made by our faculty committee of the proposed changes. This faculty statement was also the basis of a report which I made to the trustees at the meeting held last evening.

The trustees discussed the whole question very freely and fully, and have authorized me to state that they are strongly in favor of the new plan, and when later the question comes up of the amount of participation, they would be disposed to participate in the annuity and possibly in the insurance. I may say that a number of the trustees are large employers of labor, and that they are familiar with group insurance. There are two questions that they wish me to ask. One is, Is not, perhaps, 4½ per cent too high a rate of interest to guarantee on the savings? They wished also to know if there was to be any medical examination, or whether any instructor would be accepted without an examination.

May I say that, for one, I am very glad that there is some prospect of a change in the pension system. It seems to me that the plan proposed is far more serviceable than the present one, and that it possesses every element of strength and none of weakness. Without exception, every trustee and every member of the faculty believes now that there is a pension system based on the soundest, safest principles of modern insurance.

UNIVERSITY OF CALIFORNIA

Unanimous Report of the Faculty, April 7, 1916.

Resolved, That we believe that the establishment of (1) An agency to provide at cost that form of life insurance most adapted to the needs of college professors; (2) An agency for accumulating the reserve funds necessary to provide professors' pensions, offers an important and valuable service to the members of our profession.

In answer to the more important open questions raised or suggested by the report, we would respectfully suggest:

(*a*) That the decision to enter into the pension plan and the extent of that participation should rest in the first instance with the trustees and regents of each of the colleges or universities concerned.

(*b*) That a participating institution should be responsible to the Carnegie Foundation for the contributions toward pensions, and should adopt its own plan of dividing the burden of annual contributions between itself and its teachers.

(*c*) That once a college has entered the system it should be obligatory on that college

to extend the system to every qualified teacher, at least in so far as the minimum pensions decided upon are concerned.

(*d*) That a teacher should have the privilege of providing at his own cost for a pension in addition to that assured by contract with his institution.

(*e*) That inasmuch as the prospect of a pension, where it exists, is always a part of the compensation for services, it would seem proper that any fund accumulated as a reserve for paying a pension, whether contributed in the first instance by the employing college, by the teacher, or in part by each, should be treated as belonging to the teacher, not subject to any forfeitures, and that his interest therein should be protected by a definite personal contract.

(*f*) That participation in the life insurance feature of the plan is particularly a matter between the teacher and the insuring agency and may be left to the voluntary action of the teacher.

(*g*) That it is advisable that some plan be perfected for the exchange of insurance now carried by teachers for the new form and for advice as to how to effect such exchange.

(*h*) That in changing from the present plan to the new one in the institutions now participating in the benefits of the Foundation, no arbitrary line should be drawn between those to continue under the old plan and those to transfer to the new, as at the age of forty-five, but that an estimate or computation should be made of the present value of the "just expectations" of men of each age, including that part of the Carnegie Foundation's present plan which promises to provide for widows, with due allowance for the fact that it has been known from the start that there was a limit to the resources of the Foundation and that the rules might be changed; and that an apportionment of the available resources should be made upon the basis of that computation or estimate and those resources be carried into the new pension system.

(*i*) That pending the study of the possibility of inaugurating an invalidity protection plan, the generous offer of the Carnegie Foundation to continue to pay at its own cost, during the period of invalidity, the premiums on life insurance policies and minimum pension contracts, as set forth on page 45 of the Report, would alleviate many cases of distress.

In conclusion we wish to express our confidence in the generous purposes of the Trustees of the Foundation and our willingness to participate and assist in the proposed reorganization. We also desire to express our appreciation of the service rendered by the Carnegie Foundation in the past by carrying the accumulated pension burden of seventy-three institutions, and endorse the extension of the new plan to other qualified institutions, so as to offer the opportunity of rendering the pension system ultimately self-supporting and self-governing, thus freeing the resources of the Carnegie Foundation for other useful purposes.

CASE SCHOOL OF APPLIED SCIENCE

Statement of the President, April 3, 1916.

So far as there have been any expressions of opinion in regard to the matter, both the trustees and the faculty have approved the general plan.

CENTRE COLLEGE

Statement of the President, March 23, 1916.

I received copies of your Confidential Report and Comprehensive Plan for Insur-

ance and Annuities for College Teachers. I have submitted the same for consideration to our Faculty, to the Executive Committee of the Board of Trustees, and to several other members of the board.

I will try to represent to you the opinions of these men. Most of our men are very favorably impressed with the proposition for insurance. We all seem to like the idea and are favorably impressed with your proposed plan. These questions, however, have been raised:

First. Would not many college professors feel unwilling to pay a portion, even though small, of their salary to carry insurance in a company of this kind? Would they not be disposed to suggest to the trustees of the college that they add the amount which the insurance would cost the institution to their salary, and let them carry insurance or not as they please? Would the agents of many other insurance companies prevail upon many college professors to select this plan of asking for additional remuneration from the college, and carry their insurance in other and regular insurance companies? At least, two members of my faculty said this immediately the plan was presented to them: "We would simply say to the college, 'Pay us, in addition to our salary, the amount it will cost the college to carry our insurance, and let us take care of ourselves.'"

Another question: Since the college can carry insurance on a young professor much cheaper than on one of older years, would not the colleges be inclined to fill vacancies with men of younger years, and would it possibly work a hardship to the men who are growing older simply because it would cost more to carry insurance for them?

On the other hand, members of our faculty feel that they would be glad of the opportunity to carry insurance under a plan such as you have herein proposed. They would like to have the privilege of making some payment toward the protection that is offered for them in case of disability or old age.

The faculty and trustees were all very enthusiastic in consideration of the extensive character of the plan proposed, wherein provision will be made for men who become totally disabled who have not attained sixty-five years of age, or for the families of such men in case of death, and were likewise enthusiastic over the proposition to extend the advantages of this plan to the larger body of college professors than those included in the present affiliated institutions.

This question became a very practical and vital one with us here. Should the new plan be adopted, and in this adoption provision should be made, as your plan suggests, to permit the men in the faculties of the present affiliated institutions who are forty-five years or over to continue in the expectation of the annuity or pension under the present plan, would such institutions be obliged to continue on the present independent basis? In other words, to make the question really practical, should the new insurance plan be adopted, could this particular institution accept a more vital relationship to the church synods than that which now exists, and at the same time permit the men in the faculty who are forty-five years of age and over to continue in the expectation of the annual annuity should they retire at sixty-five years? You can easily understand how and why this became a question of absorbing interest to the faculty and trustees of this college.

I think this statement fairly represents the sentiment and judgment of the men here concerned in both bodies, the faculty and trustees.

CLARK COLLEGE

Statement of the President, March 21, 1916.

Speaking for myself and for our Faculty Council I would say that we are all favorable to the general plan and believe heartily in the principles on which it rests. Our questions and suggestions relate to details only.

COLORADO COLLEGE

Resolution adopted by the Faculty on recommendation of a special committee. Transmitted October 19, 1916.

RESOLVED, That we, the Faculty of Colorado College, endorse a plan by which the Carnegie Foundation for the Advancement of Teaching will offer at cost disability insurance, life insurance, and annuities adapted to the needs of college teachers, provided:

1. That the funds of the Carnegie Foundation now available for pensions shall be used to carry out the provisions of the present system as nearly as may be;
2. That, since (as shown by the Cornell report) it is necessary to reduce the benefits under the present system, in such reduction (*a*) the present pensioners be unaffected, (*b*) the maximum pension in the future be $2500, (*c*) in no case shall a pension be granted of such amount that the initial total income of the pensioner from all sources be more than $2500, and (*d*) any necessary further reduction of benefits to affect all pensionables according to their present just expectation;
3. That no additions be made to the present list of pensionables to receive benefits under the present system;
4. That the existing pensionables receive personal contracts setting forth the conditions under which the pensions are to be granted them;
5. That any additional fund that the Carnegie Foundation may receive be not applied to the support of the present system, but be used to establish a sound insurance and annuity system open, with proper safeguards, to all college teachers;
6. That such fund be kept distinct from the present fund of the Foundation so that neither fund may legally be diverted from its proper application;
7. That the details of the insurance and annuity system contemplated be fully presented for consideration to a properly authorized board or committee, such committee to have at least half of its membership drawn from professors actively engaged in teaching rather than from administrative officers;
8. That such committee present an outline of the proposed plan for insurance and annuities to the colleges and universities concerned;
9. That the new insurance and annuity fund be administered by a board at least one-half of the membership of which shall be professors actively engaged in teaching and not primarily administrative officers or connected with the Carnegie Foundation.

COLUMBIA UNIVERSITY

Suggestions signed by Professors, transmitted April 19, 1916.

In response to the request for criticism of the recent Report of the President of the Carnegie Foundation for the Advancement of Teaching, we, the undersigned, would urge upon the Foundation and the associated institutions:

1. That they make every effort to carry out the existing proposals for pensions for all college teachers affected, whether they be under or over forty-five years of age. (Signed by 118.)

2. That before any new scheme is instituted, it be submitted in completed and definite form for thorough consideration by college teachers, both as individuals and as represented by the American Association of University Professors. (Signed by 125.)

CORNELL UNIVERSITY

Quotation from printed Reply, dated March 22, 1916.

In view of the conclusion which Cornell University has been constrained to draw from the evidence, it has answered the question raised by your report, What expectations can and should be met? in the following resolution unanimously adopted on March 8 by the university faculty at a special meeting called to consider the subject, and unanimously approved on March 11 by the committee of the trustees to which the matter had been referred with power.

"The university faculty believes that the privileges and expectations which have been created under existing rules of the Carnegie Foundation constitute moral claims against its endowment on the part of such teachers and administrative officers now on the staffs of associated institutions as under the present rules would receive retiring allowances and that adequate provision for scrupulously satisfying all these claims should be made before the fund is otherwise drawn upon."

The university has further replied in the following resolution unanimously adopted March 11 at a joint meeting of a committee of the board of trustees to which the subject had been referred with power and of a committee of the university faculty to which the subject had been referred.

"Whereas it appears that the Foundation is not financially strong enough to carry the burden of the obligations which it has already assumed, therefore, the change in the character of its work and enlargement of its scope which the Report proposes are inadvisable, unless some way can be found either by additional endowment or otherwise to relieve the Foundation of such burden."

The university has further replied in the following resolution unanimously adopted on March 8 by the university faculty and unanimously approved on March 11 by the committee of the trustees:

"The university faculty is not at present prepared to approve an arrangement with the Carnegie Foundation or a subsidiary corporation whereby the cost of a teacher's insurance and of a retiring annuity or either of them shall be defrayed wholly or in part by withholding a portion of such teacher's salary."

The committees at their joint meeting further considered the request of the Carnegie Foundation for alternative plans or suggestions and in compliance with that request unanimously adopted the following resolutions:

"If relief from the burden of obligations already assumed can be secured, the Foundation should (*a*) pay out of its income, under rules to be adopted, disability annuities to such teachers in associated institutions as have purchased and are continuing annuity contracts with approved insurance companies maturing at 65 to 68 years of age and of $1000 to $4000 in value, such disability annuities to cease when the disability is relieved and in any event when such purchased annuities respectively become payable; and (*b*) distribute annually to such teachers equally the balance of its income."

"The amounts and terms of these annuities, and the questions whether the purchase of them is to be voluntary or required and whether they are to be paid wholly or in part by the professors and instructors, should be determined by each institution."

DALHOUSIE UNIVERSITY

Resolutions passed by the Senate April 11, 1916, and by the Board of Governors April 12, 1916.

1. That the expectations created in the minds of those teachers in the associated institutions who by the present eligibility rules have been led to look forward to certain privileges and benefits constitute the strongest moral obligation upon the Carnegie Foundation, and such as should deter said Foundation from withdrawing such benefits from any such teacher without his consent.

2. That this university approves of the social conceptions underlying the new scheme of insurance and annuities proposed for college teachers, namely, that some philanthropic organization with sufficient financial backing should undertake to collect the premiums and administer such insurance and annuities at the minimum cost to the insured, and it considers that such system would be of foremost value in the advancement of teaching. That, however, the Carnegie Foundation should not use its present funds for this purpose to the exclusion of meeting the just expectations of present pensionables under 45 years of age; but that if the funds at the disposal of the Foundation can be increased to the extent required, the Carnegie Foundation should undertake this new pension system, to be operative in the case of College teachers not now pensionable. That this University believes in the reasonableness of the principle by which a University shares in the provision of a teacher's annuity, and would endeavor to coöperate in a well-devised scheme for such purpose in the case of future appointments.

DARTMOUTH COLLEGE

Unanimous report of a Special Committee, unanimously approved by the Faculty, April 19, 1916. (Including a quotation from the first section, "The Present System," and the entire second section, "The Proposed Plan." Omitting the third section, "Transition from the Old to the New Plan.")

The Present System. The fact that the income of the Foundation is about $800,000 and that the ultimate load of the present pension system will be somewhere between one million and one million and three quarters annually is a problem which the Dartmouth faculty may safely leave to the Trustees of the Foundation for solution.

However, if the trustees should be solicitous to conserve their present income and extend its usefulness as widely as possible, your committee would venture to suggest one way in which some advance may be made in this direction. We would advocate the reduction of the maximum pension allowed.

. . . It appears from the statistics given . . . that 43 per cent of the pensioners now on the list are receiving pensions of $2000 and above, and 23 per cent are receiving pensions of $2500 and above. It does not appear to the Committee to be the function of the Foundation to ensure to all pensioners the same relative degree of comfort and contentment that they enjoyed during their active careers. Moreover, those enjoying large salaries as teachers and administrators have in most instances had opportunities to save a portion of their salaries in anticipation of retirement. If the demands of the position have been such that no saving was possible, the individual institution might properly supplement the Carnegie pension, thus making the aggregate pension as large as it considers adequate. But the sole object of the Foundation should be to provide an allowance sufficient to make retirement from active service possible, and the funds should be employed to extend this privilege as widely as the income permits.

We would venture to suggest that for the present the maximum pension be reduced from $4000 to $2500. It should be noted that this reduction to a fixed maximum of $2500 would have an increasingly beneficial effect on the income of the Foundation, for future increases in college salaries would tend, under present conditions, to increase the proportion of pensioners enjoying pensions in excess of $2500.

The Committee is also in sympathy with the suggestion made by the Foundation in this Confidential Report that the minimum age for retirement be raised. The statistics show that the average age of those on the list of pensioners has fallen from 71.0 years in 1906 to 68.7 in 1915, and that the average age of those retiring each year has fallen from 69.2 years in 1907 to 66.9 in 1915, and 65.7 years in 1914. In view of the well-recognized fact that a man in good health is not much beyond his prime as a teacher at the age of 65, and in view of the increasing load which the Foundation is carrying, the minimum retiring age might well be advanced to 67 years or beyond. Should it be desirable that a teacher be retired earlier because of impaired health or inefficiency, the College might properly be asked to assume the burden of the pension until the stipend offered by the Foundation was available.

The Proposed Plan of Insurance and Annuities. The entire discussion thus far has had to do with the existing pension system, and has considered the obligations of the Foundation to the teachers and colleges, and the funds available to meet these obligations. However, this is all in the nature of an introduction to the consideration of the specific plan proposed. For the Foundation, while recognizing the obligations that it has assumed and admitting the necessity for resort to the Carnegie Corporation for assistance, nevertheless registers its opposition to a system which will compel it to draw indefinitely upon the Corporation for supplementary funds, if these funds are to be devoted to the interests of a limited number of institutions. It presents, therefore, for criticism and suggestion a scheme that will make possible the inclusion of all collegiate institutions of a standard grade that desire to avail themselves of it. We come, therefore, to a consideration of the insurance and annuity plan.

Description of the Plan. This plan may be briefly described. It contemplates the incorporation under the laws of New York of an insurance and annuity agency for the benefit of college teachers. Each teacher upon his entrance into service in the college would be required to take out with this insurance agency a minimum amount of term insurance to mature at the age of sixty-five, and to purchase by annual contributions a minimum annuity which would begin upon retirement from teaching and at the expiration of the insurance. To make the annuity provision effective, a separate savings association is to be created which receives the annual contributions of the teachers and invests them, purchasing at the time of retirement with the accumulations an annuity from the insurance association. It is proposed that the College shall participate to the extent of fifty per cent of the cost of insurance and annuity up to an agreed minimum, or as an alternative that the College shall contribute only toward the purchase of the annuity. The individual is free to increase the amount of both insurance and annuity at will, and it is expected that he will increase his contributions as his salary increases. The details of the plan are not fully stated. It is clear, however, that agency expenses, a large factor in old line insurance, would be avoided.

Administrative expenses and taxes are apparently to be borne by the Foundation, although at one point there is a suggestion that the administrative expenses may come

from surplus if there is any. It is not definitely stated what disposition would be made of surplus should the mortality experience prove to be more favorable than the tables upon which the rates will be based, but the inference is clear that such a condition will lead to the payment of dividends to the policy-holders. The Foundation is to guarantee four and one-half per cent interest on invested funds.

One unique and distinctly favorable feature of the plan is that which provides for the return of accumulations toward an annuity in case of death, disability, or withdrawal before the annuity is available. Again, even after the annuitant has come into possession of his annual income, any balance of invested funds to his account are returned to his estate in case of death.

In case of death of the annuitant, his widow will receive half of his annuity during her life. The disability privileges are to be made available at the end of fifteen years as professor instead of twenty-five years under the present plan. After this period of service and in case of complete disability, the Foundation will, at its own cost, pay the insurance premiums and a minimum pension of $1200 a year during the period of disability.

In view of the questions raised by the faculty in their preliminary discussion of this Confidential Report as to the relative advantage of the insurance and annuity contract offered by the Foundation, and that which can be obtained from an old line insurance company, your Committee deemed it wise to secure expert actuarial advice before passing judgment on this portion of the report. The results of our enquiry can best be stated by giving in summary form the questions asked by your Committee and the answers received.

Question 1. Is the mortality experience of college teachers as a group likely to be as favorable as that of the selected risks of a conservative insurance company?

Answer. The mortality experience of teachers is very favorable. It would apparently be safe to take a large body of teachers without medical examination and expect as satisfactory a mortality result as on selected risks taken by a life company.

Question 2. Assuming the Foundation to have no agency or medical examination expenses, to guarantee $4\frac{1}{2}$ per cent interest, and to insure all teachers without selection, how would the net cost of such insurance compare with that of old line companies, assuming that the Foundation did or did not bear the administrative expense and did or did not pay dividends?

Answer. The cost of the Foundation's insurance would be less than that of the old line companies if the Foundation assumed the administrative expense and paid dividends, more if it did neither, and about the same if it did one and not the other. This is of course a rough approximation. A satisfactory answer can be given only after thorough investigation and analysis. The tentative conclusion is based upon the fact that the administrative expense of a life insurance company is about equal to its surplus earnings, and that the saving which the Foundation would enjoy through freedom from agents' commissions, medical fees, etc., would be in part offset by the newness of the company, its lack of accumulated surplus and the relatively small number of risks carried.

Question 3. Do old line companies offer a contract comparable in its attractiveness with that offered by the Foundation?

Answer. Old line companies do not write a pure term policy terminating at age 65. The only policy affording any basis of comparison is one written by the Travelers Insurance Co. This provides for term insurance till age 65 and an annuity there-

after for life with ten payments certain. The annual premium at age 30 for $5000 insurance till age 65 and thereafter an annuity of $1000 yearly for ten years certain, and so much longer as the insured lives is $185.30. The Carnegie Foundation provides $5000 insurance to age 65 and a $1000 annuity thereafter for $188.16, which is $2.86 greater. But there are these differences in the contract:

a. The Travelers' policy contemplates a forfeiture of the annuity accumulations if death occurs before age 65. The Carnegie plan provides for a return of the annual payments with interest if death occurs before 65.

b. The Travelers' policy gives a surrender value which at age 65 approximately equals the premiums paid plus 2½ per cent compound interest. The Carnegie plan provides for the return of annuity payments with interest at 3½ per cent if the teacher leaves the profession.

c. The Travelers' insurance policy is non-participating, but provides that in case the cash surrender value exceeds the face of the policy, the larger amount will be paid at death. The Carnegie policy is presumably participating, though that is not entirely clear from the Report.

d. The Carnegie contract provides for a survivorship annuity to the teacher's widow of half the full amount of the annuity, together with accumulations to the estate in case the widow dies before the annuity is exhausted. The Travelers' contract contains no such provision.

The summarized opinion of this expert concerning the plan as a whole is as follows: "If the Carnegie Foundation plans to pay, and is able to pay, all administrative expenses and return all surplus earnings to the policy-holders, the life insurance furnished should be considerably cheaper than any life company could supply. The annuity plan as proposed, having in mind the accumulations guaranteed at 4½ per cent seems to be cheaper than the regular companies could afford to grant."

In conclusion, this expert makes the following significant statement: "Whether the guaranty of 4½ per cent interest earnings applies to the life funds as well as to the annuity payments is not entirely clear, *but that sum should be earned on all the invested funds for some years to come.* The life insurance net rates are based, of course, on the American Experience Table with a 3½ per cent interest assumption, which makes it important that the surplus interest should clearly be the property of the insured."

The advantages of the Carnegie plan of insurance and annuities may then be briefly summarized:

a. It offers an insurance contract that is cheaper than can be obtained from old line companies; moreover, no such contract is at present obtainable in any case from old line companies.

b. Its annuity contract, which, in addition to the customary features, provides for widows' pensions and the return of accumulations, is more liberal than can be obtained elsewhere.

c. It gives to the individual teacher a contract on a business basis.

d. It offers the advantages of the system to all teachers in collegiate institutions of standard grade.

It may be proper at this point to raise the question whether this is not an opportune time for Dartmouth College to withdraw from association with the Carnegie Foundation and establish its own retiring pension system. Whatever may have been the arguments in favor of separate college pension systems at the time that entrance into the Carnegie plan was under consideration, the present time seems to your Com-

mittee to be an inopportune one for withdrawal from the Foundation for the following reasons:

(1) The new scheme, by creating a contract with the individual teacher on a business basis, frees the College from the oversight and potential interference of the Foundation, which was offered as one of the most serious objections to the present pure pension scheme.

(2) A second reason against withdrawal at present from the Foundation is to be found in the fact that coöperation with the Foundation makes it possible for the College to secure for the members of its faculty greater protection in the form of insurance, disability aid, and pensions, widows' allowances, and return of invested funds, than would be at all possible if each college acted independently.

Participation by the College. The proposed scheme would have the teacher and the College share in the cost of the system. Alternative plans are suggested as to the extent to which the College should participate. The first plan would have the College contribute both to the insurance and to the annuity; the second that the College share in the cost of the annuity alone, leaving the total cost of the insurance to be borne by the teacher.

Let us consider first the second of these alternatives. It is the opinion of the Foundation that there is a clear obligation on the part of the College to share in the maintenance of the annuity. This obligation rests on two grounds: The first purely economic, the second partly economic and partly humanitarian. The purely economic reason is that (page 13) "the provision of a pension offers the only humane and feasible method by which worn-out and aged teachers may be removed from the service. Experience has shown that neither governments nor colleges will dismiss faithful servants who become incapacitated in cases where they possess no resources to fall back upon. In such cases there is a direct conflict between the social conscience and sound administration." . . . And, therefore (page 20), "on the ground of efficiency alone, a corporation must provide some means for the removal not only of the incompetent, but also of those who by reason of disability or old age are no longer able to discharge their duties." (Page 39) "No corporation has a right to expect that a system of retirement, in which it is directly interested, will be established without its participation; nor can it expect its employees to support entirely a system of relief the benefits of which, in part at least, accrue to the corporation."

The humanitarian ground for College participation in the annuity arises (page 20) "out of the modern social philosophy, which holds that the employer is in part responsible for the happiness and security of his employees." In view of the fact that greater happiness and security of the employees makes for greater efficiency, it seems clear that there is here also sound economic reason for the participation of the College.

In this position, taken by the Foundation, your Committee concurs. Moreover, we are of the opinion that the College should contribute also to the insurance premium. In the first place, the argument already advanced, that the College has a certain responsibility for the contentment and security of its faculty, is applicable as truly to the insurance feature as to the annuity. In the second place, administrative expediency alone would seem to offer sufficient grounds for the participation on the part of the College in the insurance plan. Assuming that the insurance feature is to be compulsory, the College in employing a teacher at a given salary, if it does not share in the cost of the insurance, would have to specify, as a condition of employment, that a certain minimum portion of his salary should be paid by the teacher for insur-

ance in addition to what he would be compelled to pay toward an annuity. This would put the College at a disadvantage in competing with other institutions in which insurance was not required, or in which the College participated in compulsory insurance. If, on the other hand, the College participates in the insurance feature, it can say to the prospective teacher: "From your salary you will be required to pay a certain sum toward an insurance policy, but the College will pay an equal sum. You will therefore be buying insurance at one-half the net actual cost of such insurance." This is an attractive proposition and would seem to put the College in a decidedly stronger position in securing desirable teachers, even in competition with a college which paid the same salary but required no insurance, while the additional cost to the College would be slight. The difference in cost to the College of the alternative plans proposed would apparently be from one to two per cent of the salary roll. The Committee, therefore, favors the first of the alternatives proposed, viz., that which provides that the College participate in the cost of both the annuity and the insurance features.

In connection with the problem of participation the Committee wishes to call attention to the fact that the plan, taking a long look ahead, makes no adequate provision for participation by the Carnegie Foundation itself. The only permanent obligations which the Foundation proposes to assume are (1) the cost of administration including the two sub-agencies, if not supported by their own surplus, and the payment of taxes on insurance premiums; (2) the cost of the invalidity pension in the case of teachers having insurance and annuity contracts; (3) some load in connection with the cost of the pensions of widows; and (4) the responsibility of a guaranteed rate of interest. It is stated that these obligations would probably absorb only a small proportion of the income of the Foundation. The only suggestion made as to the use of the larger part of the income is contained in the statement (page 51): "It is believed that assisting Colleges now outside of the accepted list in the matter of their accrued liabilities would be its (the Foundation's) greatest service." But this use of the funds is temporary; just as the obligation of the present system of free pensions, however great their present load, is temporary, if a change is made to the new system of insurance and annuities.

Leaving out of account, then, for the present the problem of the present load of the Foundation and the anticipated accrued liabilities in non-accepted institutions, and bearing in mind the obligations of the Foundation frequently reiterated to maintain a system of pensions for teachers, a plan for the participation by the Foundation suggests itself, which is in harmony with its general position that the cost of the scheme should be shared by the responsible parties. It is suggested that the cost of the annuity be borne equally by the teacher, the College, and the Foundation. If the present load of the Foundation, the accrued liabilities, and the variable factors of the future (such as the upward tendency of salaries, the increase in the number of college teachers, etc.) make such a fixed proportional division of the cost impracticable, it would seem, nevertheless, that the Foundation could agree, in every year in which there is surplus of income after certain specified expenditures have been met, to return to both individual teacher and College a part of the annual premium, in the form of a reduced premium for the following year. Of course for some years to come it is unlikely that there will be any surplus that can be distributed in this way. However, the point which the Committee wishes to make is that any plan for the disposal of surplus funds by the Foundation should not await formulation until such surplus is available, but should be

incorporated in the plan from the beginning. Such a policy would add materially to the propriety of the scheme and would greatly enhance its present attractiveness.

The Compulsory Feature. As already indicated, the insurance and annuity plan is to be compulsory upon the individual teacher, and the question arises whether such compulsion is justifiable. We believe that it is for the following reasons:

(1) It has been argued and concluded that the College is under obligation to contribute because of the social and economic responsibility of the industry for its employees. It may equally be argued and concluded that each employee is under obligation to the institution and to all other employees as a group to coöperate to consummate the necessary and desired protection. Whatever may be the personal desire of a particular individual to refrain from entering the system, whether because of present sacrifice or indifference, or for other reasons, the advantages of the plan are so pronounced that the interests or whims of the individual should be sacrificed for the benefit of the group.

(2) [1]It is the opinion of the Foundation that a voluntary system would end in failure. If an insurance business is to be built upon the safe results of actuarial experience, it must be of considerable volume and must permit of reasonably exact calculation. This cannot be accomplished with a relatively small group, such as the body of teachers of the higher institutions of learning, if teachers are to be permitted to enter or leave the system at will.

DRAKE UNIVERSITY

Statement of the President, October 31, 1916.

In response to a suggestion made to me I wish to say that the trustees and faculty of Drake University, I believe unanimously, approve of the plan outlined for the future administration of the funds of the Carnegie Foundation, as expressed in your report entitled "A Comprehensive Plan of Insurance and Annuities for College Teachers." Their approval is based, however, upon the condition that the present status of teachers now employed in the different institutions associated with the Foundation remain unchanged, except that such teachers shall have the privilege of taking advantage of the new plan if they desire to do so.

FRANKLIN COLLEGE

Suggestions of the Faculty, transmitted November 6, 1916.

In response to the request contained in the confidential communication made to teachers and trustees in institutions associated with the Carnegie Foundation the faculty of Franklin College of Indiana submits the following suggestions in regard to the Comprehensive Plan of Insurance and Annuities embodied in the communication:

1. We regard the meeting of the just expectations of those teachers now connected with associated institutions as a moral, if not a legal obligation, and we believe that the funds now in the hands of the Foundation should be used exclusively to meet these expectations.

2. Any reduction of benefits promised on account of lack of funds to meet the obligations in full should conform to the following general principles.

a. Present recipients of pensions should not be affected.

b. No new pensionables should be admitted.

[1] *Confidential Report*, pp. 45, 46, 47.

c. The maximum pension should be reduced to $2500.

d. A proportionate reduction in the amount of pensions to be received should be made, the reduction to be in inverse ratio to the present age and period of service of the pensionable.

e. In view of the uncertainty felt as to the future policies of the Foundation, we feel that pensionables are entitled to definite personal statements as to their standing and prospects that shall be binding on the officers of the Foundation.

3. We would suggest in regard to annuities and disability insurance that we would welcome more definite details and further time for consideration, but at present we are not inclined to approve of any plan that would put any financial burden on any teacher without his full consent.

GRINNELL COLLEGE

Conclusions of the Faculty, October 31, 1916.

The Faculty of Grinnell College has considered at a number of meetings the report of its committee upon the changes in the administration of the Carnegie Foundation proposed by President Pritchett. The conclusions reached may be best presented by discussing separately the subjects of insurance and annuities.

I. Insurance. There is a real need of some provision for insurance that shall be reliable and less expensive than that provided by the standard life insurance companies. The plan suggested seems likely to meet this need, and would be a valuable addition to the work of the Foundation. With insurance thus provided at cost, especially if the college assumes half the expense, every teacher upon receiving permanent appointment should arrange for adequate insurance protection. The question of an absolute requirement of this should, however, be left to the decision of the separate colleges.

The disability insurance, which may be carried at the expense of the Foundation, is of very great and pressing importance. Several cases of disability have occurred among our number within recent years. Such insurance should be available for all teachers from the date of permanent appointment, instead of after fifteen years' service, even if the additional cost should have to be borne wholly or in part by the teachers.

II. Annuities. With the proposed plan of annuities the faculty does not find itself so entirely in accord, and with reference to this subject would offer the following suggestions.

The Carnegie Foundation has always stood for sound discrimination in regard to the institutions which were to receive benefits from it. It is doubtless not now intended to open the door to all organizations calling themselves colleges or universities. If discrimination in any degree is to be continued it then becomes simply a question as to where the line should be drawn, and we can think of no more logical principle of discrimination than that which has guided the Foundation in the past in limiting its benefits to institutions having high scholarship standards and which are free from sectarian or political control. Such institutions are without the financial resources which stand behind those controlled by denominations or by the states and are accordingly in special need of such encouragement as the Carnegie Foundation can give. In our opinion most may be accomplished for higher education by continuing to give

adequate retiring allowances to teachers in such institutions as are now on the accepted list.

If the funds of the Foundation are not adequate to carry this load, and it does not seem advisable to appeal for other funds for this purpose, we are not opposed to a contributory plan among the teachers of the institutions on the accepted list to supplement the resources of the Foundation. We believe, however, that adequate provision for the insurance needs would make as heavy a burden as the teachers should be expected to assume at one time. Possibly there should be a consideration of ways of economizing the use of the fund now available, such as the reduction of the maximum of the retiring allowance. If the contributory feature is introduced the teachers should hold annuity contracts and it seems desirable that both colleges and teachers should participate in the management of the funds.

The continuance of the present system would have a double effect upon higher education in this part of the country. Institutions not having pension systems would be stimulated to install them and would try to develop even more attractive forms. With a definite announcement that the Carnegie Foundation would not abandon its original requirements for admission to the accepted list and would discontinue the granting of retiring allowances to individual teachers in other institutions, the pension movement would be revived. On the other hand, institutions which have such inadequate resources as to be unable to install pension systems would be almost compelled to consolidate and form real colleges. We do not believe it to be wise educational policy to encourage the inadequate college, even by pensions to individual teachers on their faculties.

With regard to the expectations aroused by the present system among teachers in the institutions on the accepted list we note your resolution of November 17, 1915, "... that whatever plan is finally adopted will be devised with scrupulous regard to the privileges and expectations which have been created under existing rules." With regard to the "expectations" of the accepted colleges and universities themselves we find no similar statement. It seems to us that in conforming to the requirements of the Foundation at the time of admission a claim for special consideration has arisen.

We would not, however, lay too much stress upon the question of equity or expectations. We believe the matter should be considered chiefly from the viewpoint of the welfare of higher education. The general social philosophy underlying the modern pension movement is, in our opinion, a subject outside the field which the Foundation should attempt to cover. The original plan of the Carnegie Foundation, as we understand it, was to select a limited number of colleges and universities of high standing, free from state or ecclesiastical control, and enable them to set a still higher standard for American education. We believe the best influence of the Foundation has come from work done along this line and we deprecate any further variation from it.

Considering the advancement of teaching as the object to be attained we are firmly of the opinion that the restriction of the benefits of the Foundation to teachers in institutions of the type originally admitted to the accepted list, with the addition of an adequate insurance system for such teachers, will be the wisest policy.

The faculty is unwilling to close this discussion without a definite and strong expression of its appreciation of what the Carnegie Foundation for the Advancement of Teaching has already accomplished in the work of removing from the teaching profession the anxiety as to future financial support, and in the stimulus and guidance to educational movements which have come through the Foundation's reports.

It wishes also to assure the board of trustees of its hearty desire to coöperate in carrying to complete success the plans which they may adopt for the future administering of their great trust.

HARVARD UNIVERSITY

Resolutions of the University Council, October 24, 1916.

Voted: That the President and Fellows be requested to transmit the following resolutions to the Trustees of the Carnegie Foundation, together with the report of the committee appointed to consider the proposals of the Carnegie Foundation concerning pensions:

1. That the university council would regret so wide an extension of the benefits of the Carnegie Foundation as to preclude a substantial contribution from its funds to the annuities payable to teachers in the classes of institutions now receiving its benefits.
2. That systematic provision for annuities for professors and their widows on actuarial principles is desirable.
3. That some compulsory contribution from teachers is desirable.
4. That the President and Fellows be requested to communicate to the Council any definitive plan which may be formulated by the Trustees of the Carnegie Foundation for such provision.
5. That it would be highly regrettable if the existing plan of pensions were so altered as to affect any person who at the present time has the grade of instructor or a higher grade in an accepted institution, and who does not prefer to participate in the new plan.
6. That insurance and annuity plans should be kept separate.
7. That provision for insurance should be entirely voluntary on the part of teachers.
8. That any method of reducing the cost of insurance for teachers—say through the establishment by the Foundation of a separate insurance organization—is to be welcomed.

HOBART COLLEGE

Resolution of the Executive Committee of the Board of Trustees, October 2, 1916.

Resolved, That the Executive Committee of the Board of Trustees of Hobart College view with interest and appreciation the efforts of the Carnegie Foundation for the Advancement of Teaching to widen and deepen the benefits accruing from the Carnegie Pension System, and regret the inability of Hobart College to make at this time any appropriation for the promotion of the purpose as it affects Hobart College.

INDIANA UNIVERSITY

Statement of the Faculty, transmitted May 19, 1916.

In reply to your communication transmitting a tentative plan of revision of the pension system now in operation and administered by your body, the faculty of Indiana University begs leave to say that it does not consider that it has at hand either sufficient details of the plan proposed, or the technical knowledge in matters of insurance, to enable it to pass intelligent judgment upon the specific project submitted for its examination.

This faculty would, however, submit for your consideration the following points upon which it is agreed:—

1. It is convinced that the first duty of the trustees is to keep faith with all persons.

2. It feels that no plan should be determined upon, the details of which have not been fully worked out after mature deliberation and the soundness of which, when tested by the best standards of insurance practice, is not assured.

3. It believes that the plan ultimately decided upon should be upon a contributory basis and should include protection against disability after not more than ten years of service.

JOHNS HOPKINS UNIVERSITY

Statement of the Philosophical Faculty, transmitted June 10, 1916.

The Members of the Philosophical Faculty of the Johns Hopkins University, after individual and concerted consideration of the confidential report submitted to the Trustees of the Carnegie Foundation by President Pritchett, have agreed to the following expression of their joint opinion:

1. In view of the resolution adopted by the Trustees of the Foundation on November 17, 1915, approving "a contributory pension system which without unfairness to the just expectations of institutions or individuals under the present rules, shall enable the Foundation to expand," we assume that the change from the present to any modified plan will be made only under the two conditions following: (*a*) That all expectations created by the existing rules for teachers now in accepted institutions will be fully met, to the extent of the Foundation's financial resources, and no alteration in the kind of benefits receivable by any individual will be made without his voluntary acceptance; and (*b*) that no extension of the scope of the Foundation such as would deprive associated institutions of the advantages now enjoyed by them—advantages gained in many instances by modification of their rules or charters—will take place without full consultation with the governing boards of such institutions.

2. We believe that the purpose of the Foundation—"to encourage, uphold, and dignify the profession of the teacher and the cause of higher education"—would be furthered if some form of contract between the Foundation and the accepted institutions were devised which would stabilize the provisions now in force.

3. If the resources at present held or obtainable by the Foundation are insufficient to meet in full the obligations previously assumed, we are of the opinion that in no event should individuals now entitled to expect pensions, under the existing rules, be excluded from participation in the future benefits of the Foundation by any arbitrary limit of age or length of service.

4. A plan—applicable to those who may hereafter be enrolled as teachers in accepted institutions—providing for the establishment, with the Foundation's coöperation, of a special insurance and annuity system for college and university teachers, seems to us deserving of serious consideration.

5. We regard it as a condition for the success of any such system that participation in it be made a matter of individual option.

6. We should look upon it as an abandonment of one of the most valuable of the services hitherto rendered by the Foundation to higher education, if the Foundation should depart from the policy of restricting its benefits to institutions which maintain relatively high educational standards.

7. In several of its features the plan proposed seems to us as yet insufficiently defined to permit of profitable discussion.

8. We consider it important that the Foundation, before adopting any new system

such as is proposed should arrange for responsible participation both in its planning and in its eventual management, by representatives of the institutions and individuals affected.

KNOX COLLEGE

Answer of Faculty, November 9, 1916.

In answer to your request relative to the proposals embodied in the Comprehensive Plan of Insurance and Annuities for College Teachers the Faculty of Knox College has voted its hearty approval and endorsement of the "Report of the Committee on Pensions and Insurance" of the American Association of University Professors.

In endorsing this report the Faculty of Knox College desires to emphasize especially these recommendations: That the Carnegie Foundation fulfil completely any expectations held out to teachers in the associated institutions by the present rules.

That any proposed plan of insurance shall be regarded as supplementary to the existing pension system of the Carnegie Foundation, and shall, before adoption, have the approval of a committee of representative teachers and a committee of expert actuaries.

That the Carnegie Foundation adopt the policy of electing teachers in the associated institutions to its Board of Trustees.

LAWRENCE COLLEGE

Statement of the President, March 22, 1916.

The copies of your last report which were sent us were forwarded to members of the board of trustees and of our faculty with a general letter from myself asking for opinions concerning the new scheme. All the replies received from the trustees, which was not quite one-half of the number, favored the proposition. The members of the faculty who replied also favored the plan you propose.

LELAND STANFORD JUNIOR UNIVERSITY

Conclusions from the (printed) comments adopted by the Academic Council, October 19, 1916 (page 7).

1. The obligations of the Carnegie Foundation to individuals can be met by carrying out its present plan with respect to all teachers now included in the faculties of the associated institutions; but the obligations to the institutions themselves cannot be thus discharged. The abandonment by the Foundation of the object for which it was established (the payment of retiring pensions from its revenues) would in effect be an impairment of the endowment of these institutions.

2. It has not been made to appear that the proposed change is dictated by financial necessity, nor that the carrying out of the original intention is for any reason impracticable. Unless this shall be shown, we consider that the proposed abandonment of its original purpose by the Carnegie Foundation is unwarranted.

3. The proposed new plan for insurance and annuities would depend for its effectiveness upon a general coöperation with the Foundation on the part of teachers and institutions. For various reasons, and especially because of impaired confidence in the Foundation owing to its unstable policy, we believe that no such general coöperation could be secured.

MARIETTA COLLEGE

Statement of the Secretary of the Trustees, March 29, 1916.

I am pleased to advise you that so far as we have heard from the Trustees and the Faculty, every one is pleased with the suggestion you submit. The Trustees believe that it will be far better for all concerned to have the College and the beneficiaries participate in the cost of the retiring allowance. We believe that the idea of an Annuity and Insurance as developed by you is wise. Some criticisms and a few enquiries have been offered but all of them I think have been entirely satisfied by conference. A number of us have had long and very profitable discussions over your report, and we all concur in the opinion that it is wise and just. I think we all of us have been both instructed and convinced by your able presentation of the case.

McGILL UNIVERSITY

Opinions of the Trustees and Faculty, March 29, 1916.

On the 8th day of March instant we received copies of the Report of your president upon a Comprehensive Plan of Insurance and Annuities for college teachers. These were promptly distributed among members of the University Faculty, who have held a meeting at which they discussed, as well as they were able to after so short notice, the terms of the proposal. They were of opinion—

1. That no enlargement of the undertakings of the Carnegie Foundation should be entered upon without first making ample provision for satisfying the claims of present beneficiaries and the just expectations of those teachers who are now entitled to become future beneficiaries under the existing pension system.

2. That the Faculty is not able to concur in the view that the expectations, under the present rules, of young teachers are different in character from those of teachers of mature age; nor, assuming the financial ability of the Carnegie Foundation to meet the moral obligations underlying the expectations of young and old alike, is it of the opinion that such young teachers could advantageously exchange their interest in the existing pension system for one in the proposed scheme of insurance and annuities.

3. That if the Carnegie Foundation is financially incapable of making the provision mentioned in paragraph 1, then, assuming that it can and will maintain the existing pension system for teachers of a certain age, it should, in any scheme of insurance and annuities, provide for some concessions, in the way of reduced premiums or otherwise, in favour of younger teachers with "just expectations," who are within a certain limit of that age, say, ten years.

4. That, subject as above-mentioned, the Faculty approves the institution of a scheme providing teachers with insurance and annuities at cost, but it considers that certain modifications in the proposed scheme are desirable, and regards as the first essentials of any scheme that it shall be demonstrably within the financial capacity of the Carnegie Foundation and bear the guarantee of the Carnegie Corporation; and that, when launched, it shall be final, to the extent of not being subject to modifications unfavourable to contributors.

5. That in order to provide for the education of children and for the transmission of some small property, straight life insurance, on a premium basis which would result in the policy being "paid up" at the age of retirement, is preferable to term insurance.

6. That participation neither in the insurance scheme nor in the annuity scheme should be compulsory, and that the insured should be free, whether leaving the teaching profession or not, to discontinue his insurance and receive the surrender value;

and that the premiums and accumulations for an annuity should similarly be recoverable.

7. That in the event of the death of a purchaser of an annuity before the age of retirement and leaving no widow, provision should be made whereby his heirs receive some benefit from his payments and accumulations.

8. That if provision in the case of annuity payments and accumulations is made as suggested in paragraphs 6 and 7, the annuity scheme will provide, on a guaranteed interest basis of $4\frac{1}{2}\%$, a desirable method of employing the savings of teachers.

The Trustees of the University, concurring in many of the views expressed by the University Faculty, and particularly those outlined in paragraphs 1 and 4, approve cordially of the inauguration of a plan whereby members of the teaching profession may purchase insurance and annuities at cost. Administering a University pension fund of modest amount, they are in a position to contribute, from the revenues of that fund, to the purchase of annuities by the teachers on the University staff, but they are not able to state the extent of that contribution, if any, until they know how far the Carnegie Foundation will meet the moral obligations and just expectations founded on the existing pension system, until they are satisfied as to the stability of the proposed plan, and until its details are clearly put before them. They are unwilling to assume an unascertained liability. Considering the future burden on the Carnegie Foundation of its moral obligations under the existing pension system, and the additional burdens to be thrown upon it by the new undertakings projected in your President's report, they view with the gravest apprehension the intimation (on page 51 of that report) that the Foundation contemplates also "assisting colleges now outside of the accepted list in the matter of their accrued liabilities."

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Recommendation signed by 39 members of the Faculty, transmitted April 4, 1916.

The undersigned members of the Faculty of the Massachusetts Institute of Technology in reply to the invitation of the Carnegie Foundation for an expression of opinion in regard to the proposed Comprehensive Plan for Insurance and Annuities respectfully submit:

(1) That the plan is so important and far reaching in its possible results that no opinion of value can be expressed without very thorough study and discussion of the complicated questions involved.

(2) That in view of the wider public relation the Foundation would assume under the proposed plan, it is important that such investigation should be made not only by the Foundation or its agents, but also independently by the institutions on the present accepted list, and by some suitable agency representing the teaching profession, with due regard to the possible reaction of the plan on higher education generally.

(3) We, therefore, respectfully recommend to the officers of the Foundation that action be delayed for not less than one year, with a view to such deliberate consideration as is here proposed.

UNIVERSITY OF MICHIGAN

Resolution of the Regents, April 10, 1916.

Resolved, That the plan for insurance and annuities for college and university faculties, set forth in the confidential report of the Carnegie Foundation, in a general

way has the approval of the Board of Regents of the University of Michigan, and that there is a desire to investigate the scheme further and to coöperate if no serious obstacles develop to its adoption.

MIDDLEBURY COLLEGE

From a statement by the President, April 10, 1916.

From the opinions I have been able to gather, I judge our trustees would favor a contributing insurance and annuity plan, provided it seemed financially sound, and that they would endeavor to have our college meet its part of the cost. Their feeling is firm that the college should have some permanent and safe retiring allowance plan, and that the institution itself should bear part of the expense.

If funds were in hand both to complete present expectations and to institute a new plan, they (the Faculty) believe it would be advantageous ultimately to the institutions and to the teachers to substitute for the existing system a self-supporting one, having a sound financial basis, and to which both the institutions and the teachers contribute, a system separating as nearly as possible the questions of salary from the questions of pensions.

UNIVERSITY OF MISSOURI

Action of Faculty, March 20, 1916.

We welcome the effort to place the operations of the Foundation upon a contractual basis actuarially feasible with due regard to the just expectations of institutions and individuals under the present plan.

We approve of opening the benefits of the Foundation to all collegiate teachers in America, through the offer of insurance and annuities at net rates.

The recognition of certain leading principles is, however, essential: In the long run, any pension not paid for directly by the recipient will be paid for indirectly through a diminished salary. Pensions are, therefore, deferred wages.

But just as temporarily the establishment of the system has brought, in some degree, an increased wage, so temporarily the cancellation of the existing system must amount to a diminution in the total wage—unless special provision is made for teachers in the associated institutions.

We therefore recommend that the actuarial worth of the instructor's deferred wages be computed and be applied for his benefit within the general provisions of the proposed plan.

We believe also that, in view of the temporarily serious strain upon the instructor in adjusting himself to paying out of his current salary both insurance and annuity costs, it will be necessary for the Foundation to contribute for a series of years a gradually decreasing percentage of the premiums for the annuity provision. This, of course, would apply solely to teachers already employed in the associated institutions.

We regard as unwise and unjust the imposition of any forfeiture upon men withdrawing from the profession of teaching. No room should exist for gain to the institution, through such withdrawals.

We see little advantage in the contribution of the institutions to the costs of the plan. In any case the instructor must in the long run pay for what he gets. Moreover it should be left to the discretion of each individual institution whether to make the system compulsory upon its instructors. Either of these requirements would seriously impede both the adoption and the extension of the plan.

We believe the most desirable protection, in view of the attendant costs, will be afforded by term insurance plus a contingent annuity. It seems to us unwise to increase the costs in order to provide payments to the beneficiaries, increasing with the longevity of the insured. The need of the beneficiaries commonly decreases as the insured advances in age. With each succeeding year, the term insurance alone will provide for a larger life annuity to the wife, if that option of settlement be chosen.

We further approve the plan for the system of insurance and annuities because of the influence it will exercise in securing the establishment of a similar system for teachers in public schools, and for other groups of occupations.

OBERLIN COLLEGE

Statement of the Faculty, March 31, 1916.

The Faculty of Oberlin College appreciate the courtesy of the Carnegie Foundation in giving to the associated institutions opportunity for a careful study of the proposed change in policy on the part of the Foundation. They welcome especially the assurance of the Trustees of the Foundation that "whatever plan is finally adopted will be devised with scrupulous regard to the privileges and expectations which have been created under existing rules."

After the most careful study they have been able to give to the proposed plan, the Oberlin faculty feel reluctantly compelled to reach the conclusion that the proposed change of policy ought not to be made; although it is possible that if the Foundation were now starting from the beginning, it might consider the adoption of some such plan as the one proposed, a better general policy than the policy which the Foundation has been so far following. It seems to the Oberlin Faculty, however, that, quite aside from the interests or desires of the institutions and officers and teachers immediately concerned, the most important question at issue is: Could the proposed change of policy be made without a grave breach of trust, and without a consequent bringing of dishonor upon the Carnegie name and upon every Trustee of the Foundation?

In the first place, the sweeping character of the change proposed should be clearly realized. The President of the Foundation does not put the matter too strongly when he says that the plan, if adopted, "would substitute for the present system an entirely different one," involving "a complete readjustment." How complete a readjustment is involved may be seen from the simple fact that the present plan assures retiring allowances and disability allowances to all officers and teachers of associated institutions, and allowances also for widows of officers and teachers; while the new plan proposes to provide only disability allowances, though granting these after ten years less service than the present plan. What an enormous difference that makes in the pension service rendered by the Carnegie Foundation to the associated institutions may be illustrated from the statement concerning allowances in force on September 30, 1914. Confining the comparison to professors and officers of accepted institutions, that statement shows that of the allowances then in force, only 14 out of a total of 259 were granted on a basis of disability, and that only about four per cent of the entire amount paid for pensions to professors and officers in accepted institutions was paid for disability. That simply means that the proposed plan contemplates the abandonment of approximately ninety-six per cent of the present pension service of the Foundation to the associated institutions. For the more favorable treatment of disability pensions, it can hardly be doubted, is far more than offset by the pensions of widows of

professors and officers in accepted institutions now carried by the Foundation, and not included in the estimates just made.

Now this sweeping character of the change proposed is itself a most serious consideration. For such a revolutionary change plainly calls for the clearest possible warrant on the part of the Foundation. The warrant urged is the following rule of the Foundation:

> "The Carnegie Foundation for the Advancement of Teaching retains the power to alter these rules in such manner as experience may indicate as desirable for the benefit of the whole body of teachers."

Now it is not doubted that under that rule, various changes might legitimately be made in the conditions under which retiring allowances are given, like, for example, the raising of the age limit at which retirement could take place. But the Oberlin Faculty are unable to see that so revolutionary a change of policy on the part of the Foundation as is proposed, can conceivably be justified by this rule, which is Rule 11 of the rules for the granting of retiring allowances. That rule is the last of the rules named, and manifestly refers back to the ten preceding rules which have to do simply with the details for the administration of the Foundation's pension system, briefly characterized before the rules are given, and cannot possibly contemplate an abandonment of approximately ninety-six per cent of the pension service of the Foundation to the associated institutions.

This suggests that the gravest aspect of the whole matter is, that the proposed change of policy is so revolutionary as quite to fail to fulfill the just expectations of the entire list of associated institutions. The Carnegie Foundation from the beginning contended that it was not dealing with the individual teachers, but that it was enabling the institutions themselves to pension their teachers, so that the teacher might take the retiring allowance without embarrassment. The Foundation therefore offered to a number of institutions who should meet certain conditions and be definitely put upon the list of associated institutions by the Foundation, to furnish, under certain rules, retiring allowances for their officers and teachers. In response to this offer on the part of the Foundation, some institutions made changes in their constitutions and denominational relations, and other institutions, like our own college, in view of the assurance, which they supposed they had from the Foundation, of retiring allowances for the most of their Faculty, undertook to provide similar allowances for other teachers not eligible to the benefits of the Carnegie Foundation. Oberlin College has thus already pledged itself to a present annual expenditure of approximately $5700, later certain to be considerably increased. And this is probably only illustrative of similar changes in other institutions. Probably none of these changes would have been made except in the light of the offer of the Foundation, accepted in good faith by the institutions concerned.

Under these circumstances, the Faculty of Oberlin College cannot help feeling that the Foundation has virtually pledged itself with all its resources, backed by the Carnegie Corporation, to provide retiring allowance funds for the institutions now on the accepted list. For the trustees of the Foundation were given to understand from the beginning that the funds of the Foundation would in all probability need to be supplemented, and would be supplemented as occasion arose, and made adequate. And as the President of the Foundation assures us that "Mr. Carnegie has placed behind the institutions he has founded a great corporation with an income far beyond the load

which would be imposed by the present pension system," it would seem there was reason to raise most seriously with the Trustees of the Foundation the question whether the Foundation has the right, either in justice or in law, to repudiate its present pledges to these institutions, any more than a private donor, who had put with a Trust Company a large fund and promised the income of it for the meeting of the pensions of a given institution, could later withdraw that fund. Are not the honor of the Carnegie name and the honor of the trustees of the Carnegie Foundation directly involved? Is it not another case of the necessity of changing not, even where one has sworn to his own hurt?

The vital question, therefore, seems to the Oberlin faculty quite other than the questions which appear to have been chiefly in the foreground in the statement of the proposed plan—the questions, namely, of an ideal pension system, and of what will be fair for the individual teachers now concerned; although the latter consideration is indeed a serious and immediately pressing one, and has naturally distracted attention from the still graver question of the permanent relation of the Foundation to the associated institutions.

How certainly this is a relation in which the honor of the Foundation is involved, is further emphasized by the fact that a college or university is in no proper sense a profit-making corporation, and cannot therefore be justly compared with business corporations in discussing a proper pension policy. When it is said that the educational institution itself should contribute to the retiring allowances of its officers and teachers, it is to be clearly held in mind that this was precisely what the Carnegie Foundation proposed to make it possible for the associated institutions to do, either in whole or in part; if the Foundation withdraws from the present relation, it could only mean that the institutions concerned would be obliged to ask other men of benevolence to take up, in greater or less degree, what the Foundation created by Mr. Carnegie was now laying down. The Oberlin Faculty do not see how the necessity laid upon these more than seventy institutions of making such an appeal to other donors could fail to cast a grave reflection on Mr. Carnegie's name and on the Foundation which he erected for the very purpose of affording pensions to college teachers.

It may be added that the present service of the Foundation is not to be underestimated. It is no small matter that one man should have made possible retiring allowances for more than seventy institutions. To have done so large a service for that number of institutions, may well be a more significant thing than to do a very small part of such a service for a greater number. Moreover, if the original conditions of Mr. Carnegie's gift are to be observed, many institutions, in any event, must be excluded from its benefits. The gift, too, in its present form, exerts a large general influence. It has challenged and will doubtless continue to challenge other givers to attempt a similar service for other institutions.

The Oberlin Faculty prefer to confine their present answer to the Foundation to this presentation of what they feel to be the great outstanding issue involved, which seems to them to forbid the proposed change of policy on the part of the Carnegie Foundation. If, however, a fundamental change of policy is determined upon, there are important criticisms of the proposed plan which they would then like to submit; although it is uncertain whether Oberlin College would itself feel able to undertake the obligations involved in sharing in the new plan.

UNIVERSITY OF PITTSBURGH

Resolutions of the Faculty, October 12, and of the Trustees, October 31, 1916.

Resolved, That the Faculty of the University of Pittsburgh believes that the privileges and expectations which have been created under existing rules of the Carnegie Foundation constitute moral claims against its endowment on the part of such teachers and administrative officers now on the staffs of associated institutions as under the present rules would receive retiring allowances and that adequate provision for scrupulously satisfying all these claims should be made before the fund is otherwise drawn upon.

The Trustees of the University of Pittsburgh in session on October 31, 1916, having considered the Comprehensive Plan of Insurance and Annuities for College Teachers, outlined by the Carnegie Foundation for the Advancement of Teaching, 1916, took action as follows:

1. They accept the principle set forth in this Plan, that a Contributory Method is the only possible one whereby the teachers shall enjoy the benefits of a pension system.
2. They believe that the expectations raised by the Foundation on the part of the teachers in associated institutions are legitimate, and that the Foundation must, whatever else it do, plan to satisfy these completely.
3. They are not satisfied that the plan in its details as set forth by the Foundation is the best plan which can be devised. Actuaries in old line insurance companies assert that, in the standard policy, they give better results to the insured, and in group insurance, very much better results.

They therefore suggest that the Foundation make a further careful study of the whole plan with a view to securing for teachers and for associated institutions the best possible return, in insurance and annuity, for the money invested.

4. They express willingness, when a plan shall finally be adopted, to endeavor to make it a condition of appointment on the Faculty of the University of Pittsburgh, that the teacher take out the form of insurance which is required, and failing to do so, shall have no claim for participation in the benefits of the fund.
5. They are willing to consider any reasonable plan proposed by the Foundation whereby the institution shall share with the teacher and with the Foundation the cost of providing for the annuity.

The proposal when it shall be made should be quite definite so that the institution shall be advised exactly what financial burden it is asked to assume.

PRINCETON UNIVERSITY

Comment on the New Plan from the unanimous (printed) Report of the Princeton University Faculty, May 4, 1916 (pages 4-7).

We understand that the sum now available to the Foundation would be inadequate to carry the steadily growing burden of the present system, even in the accepted institutions, for an indefinite period; much less for the extension of the benefits to other colleges. While believing that the present plan should be maintained until existing obligations have been met, we recognize the desirability of considering the establishment of a new system, with a contributory feature, which should be permanent and should gradually displace the present system in the accepted institutions. While favoring the general proposal for a system of contributory term insurance and deferred annuity contracts, we are compelled to regard some of the features of the system tentatively proposed in the Confidential Report as questionable.

Contributory Term Insurance and Deferred Annuities. The proposed "annuities" are not ordinary annuities in the sense known to insurance. The premium payments are investments similar to periodic deposits at interest in savings banks. The accumulations are withdrawable by the teacher in case he leaves the profession, and are payable to his estate in the event of his death before the retiring age. In case of his survival the accumulated savings are to be applied to the purchase of a form of two-life annuity in which a smaller annuity is paid to the surviving wife, and a portion of the accumulations are returned in case of the "early death" of both annuitants; this latter provision carrying the investment element even into the annuity period beginning at age 65 or later.

As thus proposed the plan combines savings accumulations with an expensive form of two-life annuity. This combination of investment and annuities we regard as undesirable. Because of the investment character of the payments, the premiums required to purchase a minimum annuity are very high, as compared with the premiums that would be required for a simple two-life deferred annuity based upon the principle unfavorably considered (as applied to only one life) by President Pritchett (Confidential Report, page 29). In order to purchase this small annuity the teacher is compelled to make large additional payments, the necessity for which is found in the provisions for a return of the accumulations. The provision for return of the accumulations on withdrawal from the profession makes the proposed plan a savings plan. The provision for return of the accumulations at death, before or after the retiring age, makes the proposed plan a form of insurance protection—a protection which it is the avowed object of the term insurance to provide at very low cost. A combination of term insurance with an ordinary two-life deferred annuity can be sold under the conditions contemplated at rates which will permit the majority of teachers to provide adequately against the two hazards, premature death and dependent old age—which are avowedly the hazards the Foundation proposes to assist the teacher to meet.

If, however, the Foundation chooses to provide, in addition to the other agencies suggested, an agency for investment of purely voluntary savings by teachers, it would doubtless render a real service to that class of teachers whose "accumulations must necessarily take the form of modest monthly savings." But any investment feature, we believe, should be separate and distinct from the annuity and insurance features of the plan.

Disability Allowances. We favor a provision for disability allowances, and believe that, after present obligations have been met, the Foundation could perform no greater service than to assume a general responsibility for disability allowances in the case of professors in the accepted institutions and other colleges of high standing. Such disability is "a disaster infrequent in occurrence, but with consequences more distressing than any other which overtakes the man of small income with a dependent family. Few applications made to the Carnegie Foundation have been so pathetic as those in behalf of those teachers yet young, with families dependent upon them, who break down in health, or that yet rarer case of him who by some sudden accident is left a stricken and broken man with the burden of family obligations upon him" (Confidential Report, pages 43, 44).

Long-continued disability is one of the most difficult of risks to protect one's self against. If the Foundation can arrange a method by which professors can insure themselves against disability at reasonable rates, it will give security to the profes-

sion, add to its attractiveness, and in other ways often perform services of inestimable value. We urge, moreover, that, under reasonable regulations to prevent abuse, this protection shall cover all cases of disability regardless of whether they occur early in the teacher's career or late. In fact the burden is often greatest when it comes early in life, as the teacher is more apt to have dependents and less apt to have been able to accumulate any considerable amount of property. The number of instances is so small, as indicated in the Confidential Report (page 45), that the added expense in so extending the protection to all ages can be guarded against by a moderate rate of insurance.

Compulsion as Regards the Teacher's Entrance into the System. The question as to whether the proposed contributory insurance and annuity system should be made compulsory for all teachers in the affiliated colleges is one upon which we do not now express an opinion. Should the system be made compulsory, however, it is clear that the compulsion should apply only to minimum amounts of insurance and annuities and with due regard to the insurance commitments of teachers at the time the new plan is put into operation.

Extensions of System to Other Institutions. We confidently expect that the Foundation in carrying out the proposed plan will continue its excellent work for the "advancement of teaching" by granting the opportunity for participation only to institutions which reach a certain level. In our opinion the work of the Foundation has resulted in a marked advance in educational standards. We believe that it can continue to exercise a decisive influence for good through encouraging other institutions to level up to those standards by extending the privilege of participation in its benefits only to colleges that maintain high standards of teaching.

Mutualization of Contributory System of Insurance and Annuities. In concluding, we would endorse the sentiments expressed in the Confidential Report (page 52) in favor of participation in "the oversight of the system itself," by those who contribute. For the same reason, we submit that this participation should begin earlier, and should relate as well to the more detailed formulation and to the inauguration of the plan to which the contributions of college teachers are to be made, and should not be limited merely to oversight of a plan worked out by the officials of the Foundation. There are many details little touched, if at all, in this discussion, which we nevertheless recognize may be of very grave importance. We urge therefore that one of the first steps to be taken toward the development of a contributory system of insurance and annuities for American college teachers should be the provision of a representative organization involving the principle of mutualization.

PURDUE UNIVERSITY

Statement of the President, April 6, 1916.

Comments from the Board of Trustees. The Board has had no opportunity to discuss this matter seriously but expresses an interest in it and in a general way is in favor of the plan.

Comments by the faculty. About fifty out of ninety persons receiving copies of the circular have responded in writing. Of these all but one or two approve the plan in general.

RENSSELAER POLYTECHNIC INSTITUTE

Unanimous resolutions of the Faculty, unanimously approved by the Prudential Committee of the Board of Trustees, transmitted March 29, 1916.

Resolved, That the Faculty of the Rensselaer Polytechnic Institute does not approve the plan of the Carnegie Foundation for the formation of an insurance company subsidiary to the Foundation for the purpose of insuring teachers.

Resolved, That in the opinion of this Faculty, the Foundation is now morally bound to provide retiring allowances for its members in accordance with the rules of the Foundation existing at the date when this institution was included in the accepted institutions of the Foundation.

RIPON COLLEGE

Statement of the President, May 15, 1916.

A special committee of the Faculty have made a tentative report which endorses heartily the purpose and principles of your new scheme, but find occasion to suggest certain objections in reference to details.

Resolution of the Faculty, June 27, 1916.

I. That we favor an insurance whereby teachers employed in Carnegie Foundation colleges be allowed one half the premium rate required of teachers in other colleges.

II. That the proportion of premium assumed by the board of trustees of any college be left to each college.

III. That the age limit be disregarded and that it be left to the option of the teacher as to whether he change to the new plan, his expectation under the old plan being carefully calculated.

IV. That for securing an annuity amounting to $1000 at the age of sixty-five (65), teachers in Carnegie Foundation colleges be allowed a two-third rate of that required of teachers in other colleges.

V. That the faculty of Ripon College has faith that the management of the Carnegie Foundation will do what is for the best interests of the teachers and education in general.

UNIVERSITY OF ROCHESTER

Resolution of the Faculty, November 9, 1916.

Appreciating the benefits for which our higher institutions of learning are indebted to the Carnegie Foundation for the Advancement of Teaching, the Faculty of the University of Rochester, without undertaking to discuss all aspects of the Comprehensive Plan of Insurance and Annuities for College Teachers proposed by the President of the Foundation, respectfully submits the following comments thereon:

1. The wisdom of adopting a compulsory system of contributory pensions, without first submitting some definite system to a vote of the teachers who may be affected, is questionable.

2. A reduction for the future in the scale of retiring allowances, both maximum and normal, would relieve the burden of the Foundation to a considerable extent, without seriously affecting prospective beneficiaries.

3. To ask all teachers under forty-five to come fully under the provisions of the proposed plan would work considerable hardship, because many teachers under forty-five

are receiving their maximum salary, and are bearing nearly their maximum load of expenses.

4. It would be desirable to interpolate a third group of teachers between the group who would receive gratuitous pensions and the group who would come fully under the provisions of the proposed plan, the teachers in this intermediate group to contribute according to a sliding scale to be determined.

ROSE POLYTECHNIC INSTITUTE

Statement of the President, April 4, 1916.

The entire discussion was carefully read by the members of the Faculty, by the members of the Board of Managers, and by myself, and it seems to us that the conclusions reached by you were the only ones possible. The Board of Managers, therefore, resolved that they would coöperate with the Carnegie Foundation in establishing and maintaining an insurance annuity system such as it proposed along the general lines suggested. We await with interest the complete elaboration of the plan, and the Rose Polytechnic Institute will take part in such manner as the elaborated plan of the Foundation shall determine, feeling assured that their final conclusion would be the best possible under the circumstances.

SWARTHMORE COLLEGE

Statement unanimously adopted by the Faculty and the Executive Committee of the Board of Managers, April 4, 1916.

We desire to express our great interest in the Confidential Bulletin of the President of the Carnegie Foundation for the Advancement of Teaching. We believe that the Foundation desires not only to fulfil all of its moral obligations to the seventy-three institutions on its list of Associated Colleges and Universities, but to be of the largest possible service to the college teachers of these and other institutions.

We feel that the reasonable expectation of the seventy-three colleges and universities and their several faculties can be fulfilled by some such system as the one proposed, provided the Foundation continues its financial support up to the limit of the income of the present endowment of the Carnegie Foundation for the Advancement of Teaching. The Foundation is now carrying a load costing, $554,000. It can carry a load of $779,000. There are now more than 5000 teachers in the Associated Colleges and Universities. A college having 50 teachers with average pay of the teachers in these institutions would be entitled to about $7990 annually under such an arrangement (perhaps a scientific and just system of allotment would make this sum somewhat more, but this will serve to illustrate).

The Foundation could satisfy the claims of the present list of institutions up to the sum named by giving to the colleges and universities endowment in some just proportion, the interest of which would amount in the aggregate to $799,000 or more; or the Foundation could keep the fund and distribute to the colleges and universities annually, the interest on some such endowment.

To pass from the present to the new system without an arrangement by which the Carnegie Foundation would continue indefinitely financial assistance by some such method as suggested above, would impose a great hardship on the institution.

First: The eliminating of the system now in force compels the college to establish its own retiring fund, to assume the moral obligations already established by the Car-

negie Foundation, or to take a backward step unless such proper financial support for the present system be given by the Foundation.

Second: To secure necessary funds for such retiring allowance independently of the Foundation may be an impossibility.

Third: Granting the ability of the colleges to secure additional endowment, if they must use this endowment for retiring allowances, they would be prevented by so much from increasing salaries and making other much needed improvement.

The Carnegie Foundation, with the Carnegie Corporation of Two hundred million dollars endowment back of it, will not keep faith with the seventy-three colleges and universities, it seems to us, unless it divides up Fourteen millions or more in a just way among the institutions, either giving them directly the endowment the interest of which could be used for pensions, or giving the interest annually on this sum to the Colleges for pensions. The interest of Two hundred million dollars of the Carnegie Corporation for two or three years could be used in such a way as to wipe out the obligations of the Foundation. In our opinion, the Foundation will never regret in the coming years making such provision for the seventy-three institutions, as will fully satisfy their reasonable expectations. The Foundation needs the respect and confidence of the teachers and trustees of the Colleges and Universities as well as these institutions need the support of the Foundation.

We feel then that before proceeding to other work, the Foundation should in every way fulfil the expectations which it has created. In our opinion this cannot be done unless the Foundation does for the associated colleges and universities under any new system adopted, the full equivalent of what it has undertaken to do under the present system.

If the new system goes into effect the Foundation, in our opinion, should give all the teachers now in the Associated Colleges an option of participation in the new or old plan. The contributory and compulsory participation system should apply to those only who either elect the new system, or who enter the institutions after the new system is installed.

If feasible, the compulsory system should allow teachers to insure with the Carnegie Foundation or with any other insurance company known to be on a thoroughly sound financial basis.

We believe plenty of time should be given for every possible consideration before a change from the present to any other system is made. We suggest that the Confidential Bulletin be revised in the light of all the suggestions made by the teachers and trustees, and a Supplementary Bulletin issued for new consideration.

It is of the utmost importance not only that the new system be sound, but that it be as far as possible acceptable to teachers and institutions.

UNIVERSITY OF TORONTO

Statement, by the President, of the opinion of the Faculty and Board of Governors, October 27, 1916.

At a meeting of the Board of Governors of the University held yesterday consideration was given to the report of the Carnegie Foundation for the Advancement of Teaching dealing with the proposals for insurance and annuities for college teachers. The Report has been thoroughly considered also by the members of our teaching staff, who submitted the following resolutions to the Board of Governors:

(1) This meeting fully endorses the following, occurring in the "Reply of Cornell University to the Carnegie Foundation:"

"The University Faculty believes that the privileges and expectations which have been created under existing rules of the Carnegie Foundation constitute moral claims against its endowment on the part of such teachers and administrative officers now in the staffs of associated institutions as under the present rules would receive retiring allowances, and that adequate provision for scrupulously satisfying all these claims should be made before the fund is otherwise drawn upon."

(2) While approving of the principle of insurance, this meeting is not prepared to express an opinion as to the advisability of introducing compulsory insurance with the proposed "Carnegie Teachers Insurance and Annuity Association;" but approves of the provision made in the new plan to meet the risk of disability.

(3) This meeting is of opinion that teachers and others eligible to benefits under the present pension system of the Carnegie Foundation should be allowed, if they so desire, to transfer to any new scheme that may be adopted by the Foundation.

In transmitting to you these resolutions the Board of Governors desires to emphasize the fact that when this university was placed upon the Carnegie Foundation the Board of Governors advised the staff to make such provision as they deemed sufficient for their protection until they should have qualified for pensions upon the Carnegie Foundation. No distinction was made as to age or standing. All those holding permanent or semi-permanent positions were advised alike, and they may probably have acted in accordance with this advice. The Governors therefore are of opinion that a moral obligation has been incurred with all those who have come upon the staff under these conditions, and that this obligation should be fulfilled by the Carnegie Foundation.

This being assumed, the Governors, however, will be glad to consider any proposition that the Carnegie Foundation may lay before them dealing with those who may hereafter be appointed to the staff of this university. They recognize that under the present system a long period in the life of a teacher, in which he is without protection, might advantageously be covered by some form of insurance.

The report which has been submitted to them by the Foundation, however, is tentative in so many points that the Governors are at present unable to give a definite answer with regard to any one scheme, but will give sympathetic attention to any plan that may be submitted to them after the Foundation has considered the matter more fully.

TRINITY COLLEGE

Action of the Faculty, transmitted April 11, 1916.

The Faculty of Trinity College desires to express its appreciation of the services rendered to college and university teachers by the Carnegie Foundation for the Advancement of Teaching, and its concurrence with the desire of the Foundation to inaugurate a more comprehensive scheme of protection for college teachers than has as yet been established. The faculty would, of course, welcome any proposition which bids fair to meet the responsibilities already assumed by the Foundation, and which, at the same time, promises to provide adequate assurance for the future.

It is a question in the minds of the faculty whether the ultimate solution of the problem on the part of the Foundation should provide for a combination of insur-

ance and annuities, or whether the resources of the Foundation, as hitherto, should be devoted entirely to annuities.

Of the tentative project submitted by the Foundation, the Faculty of Trinity College, although in sympathy with most of its purposes is not prepared, in the absence of more specific information, to express a definite opinion. In response, however, to the request of the Foundation for the coöperation of the associate institutions in reaching a conclusion, and with a view to eliciting a more complete statement and explanation of the plans of the Foundation, some queries which have arisen in the minds of members of the faculty are appended hereto. In any case, it seems highly desirable, if not imperative, to have a commission consisting of the best insurance experts to be obtained consider both the details and the general feasibility of the plan before any final decision be made by the Foundation and the colleges and universities.

TUFTS COLLEGE

Statement by the President, April 6, 1916.

The Trustees and Faculty of Tufts College wish me to say that:

(*a*) The action of the Executive Committee of the Carnegie Foundation, as conveyed to the President of Tufts College under date of July 30, 1906, was an assurance to the members of the faculty that "retiring allowances become a part of their compensation."

(*b*) They understand that the new plan proposes to withdraw this assurance and substitute therefor a scheme of mutual insurance and annuities.

(*c*) They do not wish—at least at the present time—to give their approval to this change, because they feel that their interests would suffer thereby.

(*d*) They respectfully call attention to the following:

1. For some ten years they have had absolute confidence in the above mentioned assurance given them by the Carnegie Foundation.

2. On the strength of this confidence, each professor has felt that an equity in what would ultimately become a substantial pension was accumulating year by year in his behalf.

3. They have noted that the interest of the generous founder—as explained in his letter of gift—was to provide "retiring pensions," and they hesitate to approve of any substitute therefor.

4. The proposition to substitute a system of mutual insurance to be paid for by the professors and colleges seems, moreover, incompatible with the spirit of the founder, who felt that the intended beneficiaries could not afford this expense, he having expressly stated in his letter of April 16, 1905, that "the least rewarded of all the professions is that of teacher in our higher educational institutions," and that as regards providing pensions "very few indeed of our colleges are able to do so."

(*e*) They respectfully ask for enlightenment upon the following:

1. Does the new plan provide that those seeking its benefit shall submit to a medical examination? If it does, in what way will the physically unsound be provided for? If it does not, is it not probable that the unsound will seek larger policies and thus throw an excessive burden on the sound? What will be the effect of this factor upon "experience" as compared with the standard mortality tables?

2. Is it the purpose of the Carnegie Foundation, or of the proposed subsidiary company, to give the insured a fixed and definite policy, and if so, in what way would

this be less expensive than and superior to a policy issued by one of the regular insurance companies?

3. Since the professor is ordinarily considered to be a "preferred risk," is it not true that the mortality factor would be less than the estimate of the McClintock Table, and, therefore, the sum of $10,640.20 (mentioned on page 30 of the Confidential Report) would not be sufficient?

UNION COLLEGE

Answer of the Faculty, March 30, 1916.

I. We recognize the fact that the Carnegie Foundation will be unable to continue for more than a limited period the payment of retiring allowances under the present plan.

II. We agree that a permanent pension system should be based on the needs of the young man just entering upon his profession rather than on the needs of the professor nearing the end of his period of useful service.

III. We recognize that for a period of years some means of adjustment between the two points of view must be found; nevertheless, we believe that the Foundation should consider most carefully its view, expressed on page 49 of the Plan, as to the "just expectations" raised by the action of the Foundation up to this time; for in our opinion such expectations may be rightly held by all present members of Faculties who would be beneficiaries of the system.

IV. The proposed system of Insurance and Retiring Annuities seems to us to be a good one, and we believe that it would be more attractive to many young men than the present system.

V. We wish to emphasize our sense of the importance of the question of Invalidity and Disability. The term of years necessary to secure the benefits of insurance against invalidity and disability, as stated on page 44, seems to us to be far too great. We see no reason why every person who enters a college faculty with the purpose of teaching should not have the advantage of such protection as well as that of participation in the other feature of the plan. Indeed, it seems probable that most teachers would be glad to make additional payments to share in the benefits of this insurance against invalidity and disability.

VI. We believe also that the Foundation would do well to provide that professors looking forward to retiring allowances under the old plan may avail themselves of this protection against invalidity and disability by a proper contributory payment.

VII. In the transition from the old system to the new, we believe that all present members of faculties and associated institutions should be given a choice as to which plan they would prefer.

VASSAR COLLEGE

Action of the Executive Committee of the Board of Trustees, March 8, 1916.

The Executive Committee of the Board of Trustees at its meeting to-day voted that it was the sense of the Trustees that the principles proposed in the confidential document called "Comprehensive Plan of Insurance and Annuities for College Teachers" were highly desirable, and that Vassar College would welcome the establishment of the Foundation's work upon some such basis as that proposed.

Action of the Faculty, October 31, 1916.

In regard to the comprehensive plan of insurance and annuities for college teachers proposed by the Carnegie Foundation, the Faculty of Vassar College has voted its approval of the report of the committee on pensions and insurance of the American Association of University Professors.

UNIVERSITY OF VERMONT

Statement of the President, November 9, 1916.

Our Board of Trustees did not feel ready at the annual meeting the latter part of June to take official action, and our faculties have felt the need of further time to consider the matter more deliberately. I think I do not misrepresent my colleagues when I say that they are deeply appreciative of the difficulties confronting you and your associates and that they hope to be able to coöperate with the Directors of the Foundation in the execution of any policy they may conclude to be best for the colleges and universities of the country and for the highest welfare of the cause of education in general.

It is possible, I think, to be more explicit in expressing the attitude of the President and the Board of Deans. Without any attempt at elaboration, our conclusions may be briefly summarized as follows:—

1. Since readjustments have been made by most of the recognized institutions in order to meet the requirements of the Foundation, all educational staff members in such institutions, without regard to age or length of service, should be assured of retiring allowances on the basis of the original stipulations promulgated by the Foundation. Many of those teaching in approved institutions have accepted the positions they now hold and have shaped their professional careers in full expectation that the promises of the Foundation would be rigidly observed. Certainly any very radical change of policy now would seem to constitute a breach of faith for which the Directors of the Foundation could hardly wish to assume responsibility.

2. If at all practicable, the Foundation should keep faith with its accepted institutions, as well as with the individuals in the service of those institutions. Readjustments of direction and administrative policy have been made in many instances according to requirements laid down by the Foundation and the officers of the Carnegie Corporation no doubt realize that there is an implied moral obligation resting upon them as the Trustees of Mr. Carnegie's wealth to see to it that his beneficent philanthropy, established for the benefit of those belonging to "the least rewarded of all the professions," shall not be allowed to disintegrate.

3. We do not speak officially. It is, however, the opinion of the President and Board of Deans of the University of Vermont that the authorities of this institution will be pleased to coöperate with the Foundation in extending the benefits of any mutual plan of pensions and insurance for college professors that may seem feasible after the Foundation shall have made adequate provision to meet the just expectations of individuals to whom the Foundation is now definitely obligated and to the institutions which, by reason of conditions complied with, are entitled to first consideration.

WASHINGTON UNIVERSITY

Action of Faculty Club, October 31, 1916.

The Faculty Club of Washington University, comprising a large majority of the members of the corps of instruction of all departments of Washington University, at

a special meeting called for the purpose of considering the comprehensive plan of insurance and annuities for college teachers as proposed by the Carnegie Foundation for the Advancement of Teaching unanimously endorsed the report drafted by the committee on insurance and pensions of the American Association of University Professors and voted that announcement of this action be sent to the Carnegie Foundation, to the President of the American Association of University Professors and to the Chairman of the Committee on Pensions.

WASHINGTON AND JEFFERSON COLLEGE

Resolutions and Suggestions of the Faculty, received November 11, 1916.

RESOLVED: That the benefits accruing to the teaching profession through the present system of teachers' pensions have extended without any observable prejudicial effects to the profession as a whole, and that the discontinuance of the plan of pensions would injure in all cases those who have lived under the expectations which the system has created. Furthermore, that we cannot look with favor on any system of insurance, that,

First, will be more expensive than ordinary commercial insurance; that,

Second, will prove retroactive by disturbing plans, made in good faith in view of the present system of pensions, by any who at present can expect to share the benefits of the present system; that,

Third, pursues a plan which does not provide that the individual may make his choice, as regards his accepting the new scheme, without his decision's affecting the rest of the faculty, or his associates, either individually or as a body; that

Fourth, by increasing the number of beneficiaries will decrease the value of individual pensions as at present granted; and that,

Fifth, shall not be treated, perfected, and managed as an undertaking entirely separate from the present system of pensions.

SUGGESTIONS. 1. We believe that any new plan of insurance and annuities for teachers will most speedily justify its claim to survive and enlarge if it comes into free competition with other plans of the same kind that may be offered by the regular insurance companies. To this end acceptance should not be obligatory on the part of any individual, nor should the plan as adopted contain features that will make action by the governing boards of the educational institutions essential to the participation of the employees of these institutions.

2. We feel that as a matter of policy great advantage to the Foundation and to teachers enjoying its present advantages might come through the elaboration of a mode of transfer from the old plan to the new plan in the case of those individuals who desire it. A scale of monetary values might be computed that would set forth a reasonable estimate of the present worth (depending on the age of the individual) of the expectation of being pensioned at the age of sixty-five; then, this value could enter into the determination of the amount an individual would have to pay monthly for participation in the benefits of the new plan. By this means the number of those under the present plan would be reduced through acts of free choice.

WELLESLEY COLLEGE

Summary from the (printed) Report of the Faculty Committee, October 14, 1916 (page 1).

GENERAL POSITION. 1. We believe that the members of the teaching staff in our higher

institutions of learning may safely be entrusted with the task of applying any surplus, large or small, to increasing their professional value, or to the proper protection of themselves and their dependents.

2. In our opinion the dignified method of dealing with the salary situation which the Carnegie Pensions were intended to relieve is for Trustees of colleges to pay such salaries as would make the teacher completely, and the college not at all, responsible for his teaching value and his future protection.

3. We believe that any plan proposed for the advancement of teaching and the financial relief of the profession should afford the individual teacher the maximum of available capital, absolutely at his own disposition, during his period of active service. As to the question of protection, we do not approve of the compulsory protection outlined in the Confidential Report (page 46).

WELLS COLLEGE

Recommendations of the Faculty, transmitted November 9, 1916.

1. That inasmuch as the old plan of using the Foundation's funds for the benefit of college teachers is impossible, a new plan for so using such funds is advisable.

2. That such a plan ought to provide for annuities.

3. That it ought to provide for insurance but only for such teachers as desire insurance, and only provided it can offer insurance at substantially lower rates than commercial companies offer.

4. That the Foundation would be acting commendably in carrying the disability risk as completely as possible.

5. That the plan should provide for a contributory basis to be participated in by both faculty and college, the details of the relative amount of the participation by each to be left to the individual colleges to decide.

6. That the compulsory feature of the plan be eliminated, if possible.

7. That the plan should include all the colleges of the United States and Canada which meet academic standards of the Foundation, provided always that the financial resources of the Foundation be not overtaxed.

8. That in the change from the old to the new plan all the teachers of the colleges coöperating at present be treated alike. We would suggest that all teachers be included in the new plan and pay for annuities at the rate adopted for the age at which the individual teacher entered the faculty of a coöperating institution.

9. That the new plan be evolved by a joint committee representing the Foundation and the Associated Colleges, and be submitted to the Associated Colleges for amendment.

10. That the new plan be adopted by the colleges by the agreement of the Trustees and Faculty acting separately.

Action of the Trustees, November 9, 1916.

Regarding the recommendations of the Faculty to the Trustees of Wells College in respect to the so-called "Comprehensive Plan" of the Carnegie Foundation, the Trustees suggest:—

1. That before any plan which would defeat the "just expectations" of the persons now in the accepted institutions is adopted, the Foundation should make it more clear than has been done by the "Comprehensive Plan" that it is financially impossible to meet the obligations already morally assumed.

In this connection it may be questioned whether these obligations would not fairly justify the Foundation in asking, and the Carnegie Corporation in granting, relief, by additions to the Foundation's funds or appropriation to the Foundation of a portion of the Corporation's income so long as might be necessary to make good all present obligations of the Foundation.

This would be quite different from asking that the Corporation should carry "for an indefinite future, a continually growing financial load for a pension system available to a very limited number of institutions"—as the "Comprehensive Plan" states it.

It would apply only to those whose "just expectations" have been excited up to the present time, but after a few years the burden would diminish and finally terminate with the lives of those entitled to the benefits of the present plan.

2. Should it be clearly made to appear that these "just expectations" cannot be met, by reason of the financial inability of the Foundation to procure or provide the necessary funds—the Trustees are disposed to agree in general with the recommendations of the Faculty.

The Trustees, however, are of the opinion that the investment or savings feature of the plan for annuities recommended in the "Comprehensive Plan" should be eliminated, or at least separated and operated by a different agency, the use of which by teachers, should be optional.

WESLEYAN UNIVERSITY

Suggestions of the Young Faculty Club concerning the "Comprehensive Plan," signed by all resident members of the Faculty, except one, who are under forty-five, April, 1916.

1. That a table be presented which will show, as nearly as may be practicable, the financial loss which the change in your rules will involve for the younger men of the affiliated institutions.

2. That the plan for annuity payments as outlined on page 30, be separated into two parts, the first of which may be elected without the second.

The first part shall be a plan for a pure annuity, and shall include nothing else. Such a plan is roughly indicated by the table on page 29, but this table does not include the partial annuity to the wife should she survive her husband.

The second part shall be a plan for investment. This latter plan is involved in that on page 30, in the provision that accumulated payments shall be paid to the teacher's estate in case of death prior to age 65; and is, therefore, essentially term insurance for progressively larger amounts.

3. That instead of a fixed age, above which the present rules of the Foundation will apply, and below which they will not apply a sliding scale should be substituted.

4. That the premium be paid wholly by the individuals.

Quotation from the Reply of a Joint Committee of the Trustees and Faculty, August 8, 1916:

We note further the following statements, taken from the "Comprehensive Plan," concerning the principles and expectations guiding the Foundation at its beginning, viz: (page 53) "that it would be more fruitful in college life to maintain a generous system of pensions in a limited number of colleges than an inadequate system in many colleges—" also, "They believe that the institution of a pension system upon a generous scale in such a number of representative institutions would result in the general adoption by other colleges of similar pension systems." We venture to suggest that

ten years is too short a time in which to reach an assured judgment concerning the correctness of these expectations, and that it is not only more equitable as regards the institutions already receiving assistance from the Foundation, but likewise wiser as regards the development of pension systems in other institutions, to continue the present plan, with as little change as possible, for a much longer period.

WESTERN RESERVE UNIVERSITY

Memorandum of general Faculty opinion, March 29, 1916.

1. All privileges and expectations to be fully met.

2. The purposed subsidiary companies, as described on page 50, B and C, to be formed.

3. The arrangement for both insurance and annuities to be voluntary, to be determined by and between the individual teacher and his college.

4. As applied specifically to Western Reserve, strong advice to be given by the administrative officers to each incumbent not pensionable, either under present or future arrangements, to purchase both insurance and annuity, the cost to be met by the individual teacher. One reason for intimating that the cost is to be met by the individual teacher is found in the fact that the trustees are now engaged in raising salaries by sixty per cent. Already the actual increase has been about thirty per cent. The process is continuing year by year. The addition of a further payment, made by the college on account of insurance or annuity would represent an increase which the Trustees, at the present time, in my judgment, would be reluctant to assume. If, however, teachers would be inclined to waive the additional stipend, the University might be willing to become responsible for the payment on account of the purchase of insurance and annuity.

Vote of the Faculty of Adelbert College, November 6, 1916;

That the Faculty of Adelbert College of Western Reserve University protest against the proposed change in the pension system of the Carnegie Foundation as described in "A Comprehensive Plan of Insurance and Annuities for College Teachers" on the grounds (*a*) that it would deprive many college teachers of their vested interests; and (*b*) that it would so change and enlarge the scope of the Foundation's activities that its funds would be inadequate to carry out the Founder's object, the advancement of teaching. The benefits to individuals would be too slight to have any significant advantage.

UNIVERSITY OF WISCONSIN

Minute of the Regents, March 31, 1916.

"It is the opinion of the regents that it will be unwise to raise the question at the present time, with the state legislature of Wisconsin, of state contributions to an insurance and annuity system in the university; and the regents believe it probable, if the question were raised, that an appropriation for the purpose would not be granted."

Summary of conclusions from the (printed) report of the Action of the Faculty, April 4, 1916 (pages 11 and 12).

(*a*) The policy of providing and administering benefits for the teaching profession through an institution like the Carnegie Foundation is a wise one, based upon a sound social policy.

(*b*) To secure the best results from such a system its benefits should be of substantial amount to the individual recipients, and under existing financial limitations they should be granted within a restricted list of beneficiaries.

(*c*) Competition among colleges will secure to teachers not included in such list substantial benefits from it, and will ensure to the teaching profession, as a whole, a greater total advantage than could be obtained through a wider distribution of smaller benefits.

(*d*) The benefits granted should primarily take the form of rewards for service rendered rather than of aids or incentives to personal thrift, or of protection to persons other than the teacher.

(*e*) In our opinion no considerable benefit would accrue to the teaching profession through entrance into the field of life insurance as proposed by the Carnegie Foundation. It is doubtful if any modification of the proposed insurance scheme would render it attractive, since the aim of insurance is protection rather than reward. The attainment of this end seems to us the function of the individual and of commercial agencies rather than of a unique institution like the Carnegie Foundation. We especially disapprove the proposal of compulsory insurance in a designated company, to be enforced as a condition of service in all institutions participating in the Carnegie benefits.

(*f*) We approve in principle the suggestion of benefits in the form of disability relief.

(*g*) We approve the original purpose of the Carnegie Foundation, viz., a pension scheme, as exemplifying the best mode of extending its benefits to the teaching profession. The Foundation has assumed for a considerable group of institutions their "accrued liabilities," thus freeing them from what its President regards as the chief obstacle to the establishment of a more desirable system of retiring allowances, viz., one based, at least in part, upon voluntary contribution and involving at the outset only young lives. We regard some contributory feature as probably essential to a permanent system of benefits based upon a limited capital fund. We would welcome further suggestions looking to that end, but in the meantime we approve the position taken by the Trustees of the Foundation relative to its moral obligation to fulfil those reasonable expectations that have been created by its acts.

WORCESTER POLYTECHNIC INSTITUTE

Statement of the President, March 18, 1916.

The proposed plan of insurance, annuity and savings seems to me excellent for the reasons given in your pamphlet. It also commends itself to the members of the Faculty as being more self-respecting and acceptable to the teaching profession than a system of old age pensions to which neither the colleges nor the teachers have made any contribution. There was no dissenting voice among our teaching staff on that subject. I think they would welcome the proposed departure from the original plan of the Foundation.

YALE UNIVERSITY

The following minutes and votes appear in the records of the Yale Corporation for its meeting of September 18, 1916:

"The president presented a summary of the report of President Pritchett of the Carnegie Foundation on Insurance and Annuities for College Teachers.

"After an extended discussion participated in by practically every member of the Corporation present, it was

"Voted, that in the opinion of the Yale Corporation it is essential that the insurance feature of the plan should be wholly separated from the retiring allowance provisions.

"Voted, that Yale University is prepared to coöperate in securing any modification of the rules regarding retiring allowances which the financial condition of the Carnegie Foundation may render necessary."

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PART III
PENSIONS

PENSIONS FOR PUBLIC SCHOOL TEACHERS

The rapid development in the number of pension systems for public school teachers that was noticed in the last two reports has ceased for the time being. During the current year only three city systems (Erie, Pennsylvania; Chattanooga, Tennessee; and Wheeling, West Virginia) have been established, while the Iowa State Teachers' Association has prepared the only state plan for consideration at the forthcoming legislative session. The New York City pension system definitely reached its crisis, which the state legislature unsuccessfully attempted to meet by the enactment of a new law. While this situation has stimulated much local discussion in the press and at public meetings, consideration of the problem of teachers' pensions of a national scope has been inaugurated by the coöperation of the Carnegie Foundation with the Committee on Teachers' Salaries, Tenure, and Pensions of the National Education Association. The wide attention that is being given to the subject, not only as it affects teachers but in its bearing on occupations in general, cannot fail to clear it of many *a priori* prejudices that have hampered progress in this field, and throw into relief the few and simple principles on which pension legislation must rest.

Of the three city systems that have been introduced this year, Erie alone has broken away from the traditional practice and has adopted *in toto* the pension plan of Massachusetts. The principles of this plan are so well known that it is unnecessary here to repeat them in detail. Briefly, the system is based on the purchase of annuities by assessments on teachers' salaries and the duplication of these by true pensions paid out of appropriations by the city's Board of School Directors. The plan ensures a minimum retiring allowance of $300 at the age of sixty to teachers who have served the city for fifteen years before retiring. It will be of great interest in the future to compare the working of this plan in the commonwealth which employs about 17,000 teachers and in the moderate-sized city with 300 teachers. The publication of statistics and other data that have enabled the Board of School Directors to arrive at some estimate of the probable cost of the plan would be a valuable contribution to pension literature, and would serve as a stimulus to many other school authorities.

By an act to amend the charter of the city of Chattanooga, Tennessee, the Board of Commissioners of the city have been empowered to levy such taxes as may be necessary to pay pensions to teachers over sixty years of age who have served in the public schools of the city for thirty years or more. Under the conditions mentioned, teachers may retire at their own discretion, or at the request of the Board, on pensions equivalent in amount to two-thirds of their salaries during their last year of service. It is probable that the urgency of the local situation led to the establishment of a straight pension system, which was immediately set in motion to pension a teacher who was seventy-five years of age and had taught in the schools for thirty-five years. Chattanooga employs only about 150 teachers, but it is doubtful whether the

public will be prepared to pay the cost ultimately involved under a plan to which the teachers make no contribution at all.

The plan adopted by the Board of Education of Wheeling, West Virginia, belongs to the familiar type that promises, on total payment by the teachers of $600, to grant pensions of $360 a year, beginning at the age of sixty-five, or even earlier, and is consequently likely to run for about eleven years, according to the American Experience Table. Few investments will bring a return of $3960 on an outlay of $600 in small sums spread over thirty years. The system is administered by a board of trustees of seven members, two of whom are to be elected by the teachers. Membership in the fund is optional with teachers already in the service, but compulsory for new teachers. The assessments on salary are $20 a year, while the Board of Education supplements this on the estimate of the board of trustees by such sums as are necessary each year to ensure the payment of all annuities. Teachers are to be retired at the discretion of the board of trustees after thirty years of service, of which twenty years must be in the local public schools, and automatically on reaching the age of sixty-five. Before retirement teachers must have paid $600 into the fund or have sums deducted from their pensions until this amount is made up. The board of trustees may also by a majority vote retire teachers on account of physical or mental disability after twenty years of service in the public schools of Wheeling, provided they have paid $600 into the fund. Returns of contributions without interest are promised in the event of resignation, dismissal, or death. In criticizing such a plan it is impossible to do more than refer to the numerous instances of failure of other plans based on similar principles.

The Iowa State Teachers' Association, which failed two years ago to secure the passage of a pension bill, has prepared a new plan which at least has the merit of novelty. The scheme is to be administered by the state superintendent, and the right to retire is to be established by a judicial action brought by the applicant for retirement against this officer. Teachers may retire after twenty-five years of service, the last five of which must be in the public schools of the state, on a pension of $12 for each year of service. Provision is also made for the retirement of teachers on the ground of mental or physical disability after twelve years of service. The annuity is to be paid by the state out of funds raised by an annual tax. Each teacher on retirement will be required to pay $300, either in a lump sum or by deductions from his annuity, into the permanent school fund, and the interest accruing on such payments is to be divided annually in equal shares up to a maximum of $300 for each annuitant. The system is nothing but a straight pension with the addition of a tontine feature. The payments by the annuitants bear no relation whatever to the annuity. This part of the plan amounts practically to a gamble on the number of annuitants to be added to the list and the number who die each year, and the successful investment of the fund. The payment of $300 at the time of or during retirement appears to place an unnecessary burden on the old teachers, while the fund loses the interest that might be

earned if the contributions were spread over a series of years. Retirement after twenty-five years of service without any age restrictions would place a premium on the retirement of comparatively young and active teachers, and would at the same time put a heavy burden on the state funds. It is difficult to understand why the court action is introduced at all to establish the right of teachers who have apparently fulfilled the conditions to retire, unless it be to swell the fees of the county attorneys, to be charged, by the way, to the state. This provision seems like an undue and unreasonable complication of machinery to take care of a matter that can be handled simply in the ordinary routine of an office. Indeed, the whole plan smacks of over-elaboration to conceal its chief purpose, which seems to be the establishment of a straight pension system paid out of state funds. The remaining details are mere frills.

The Second Annual Report of the Massachusetts Teachers' Retirement Board forms a useful contribution toward the accumulation which is only just beginning of data on the pension relations of teachers. After a trial experiment of three years, the Board has decided with the approval of the teachers to fix the assessment on salaries at 5 per cent indefinitely. During the year covered by the Report, 1915, the fund had a membership of 8612 teachers, of whom 6140 were teachers who were already in service at the time the system was inaugurated and who joined voluntarily, and 2472 were new teachers who became members by the terms of their appointment. Of all the teachers of the state, excluding Boston, who were eligible for membership, between 55 and 60 per cent had been enrolled. Of greater significance are the age and service records of the sixty-six teachers who retired during the year, records which are at variance with the preconceived notions that teachers desire to retire at an early age after a comparatively brief period of service. The experience of the Commonwealth in 1915 showed that of those retired in that year 8 retired at sixty years of age, 11 at sixty-one, 21 between sixty-two and sixty-five, 11 between sixty-six and sixty-nine, and 15 at the compulsory age of seventy. The significance of these figures is further emphasized by the fact that of the 409 teachers who would be eligible to retire in 1916, only 42 had declared their intention of so doing. It will be recalled that teachers may retire on reaching the age of sixty, and that the state assures the teachers in service when the system was established a minimum retiring allowance of $300. Not only did the majority of the sixty-six teachers continue in service beyond the age of eligibility, but their periods of service were higher than those required in most of the usual pension schemes. Only 4 had served less than twenty-five years in the Commonwealth, 4 had served between twenty-five and thirty years, 13 between thirty and thirty-five years, 10 between thirty-five and forty years, 22 between forty and forty-five years, 10 between forty-five and fifty years, and 3 more than fifty years. Thus, 58 of the teachers retired after a period of service beyond the thirty years required most frequently, according to the analysis of teachers' pension systems presented in the Tenth Annual Report. These figures merely point to the fact that up to the present very little is known of the vital statistics of the teaching profession. It would be

desirable to know for how long and up to what age a teacher can continue to render efficient service without impairment of health. The experience of Massachusetts, tho brief, at least indicates that there is a subject for investigation, the results of which may cause a revision of the prevailing views on the extra-hazardous character of the teacher's work. It may be mentioned in this connection that the retirement board, by a resolution of the Senate, has been directed to investigate the advisability of establishing a contributory disability retirement system to supplement the pension system. Such an investigation should throw much needed light on a subject concerning which great confusion exists. The report announces that the board has decided to adopt, for the purpose of operating the retirement system, the American Experience Table of Mortality with $3\frac{1}{2}$ per cent interest, a decision which an actuarial valuation has proved to be satisfactory. The report on the whole indicates that the board in charge of the system has a due appreciation of its responsibility and of the problems involved. Similar reports issued under different conditions of employment throughout the country would be of incalculable benefit in securing the desirable goal of sound pension systems based on well-considered principles and a thorough mastery of the facts underlying them.

NEW YORK CITY PENSIONS

The New York City Teachers' Retirement Fund reached an inevitable state of bankruptcy early this year, and much thought has been devoted to attempts to meet the emergency. Teachers on the pension list were paid irregularly for a time, and in lieu of placing new teachers eligible to retirement on the list, these were granted leave of absence on half pay until the practice was declared illegal. The Commission on Pensions issued a valuable report on *The Teachers' Retirement Fund*, which contained a descriptive account, a critical study, and suggestions for a reorganization of the fund on sounder actuarial principles. The report is accompanied by detailed actuarial calculations, based on a careful investigation of the vital statistics of the teaching profession.

The report concludes that the old plan failed to promote the efficiency of the service and was conducted without any knowledge of or regard for the cost. A continuation of the present scheme would require contributions up to 20 per cent of the pay-roll. The fund's actuarial liabilities would amount to $69,809,760, with assets of only $15,066,440 to meet these obligations, a deficiency of $54,743,320, or about twice the amount of the annual pay-roll. The failure of the fund was inevitable from the start; it was hastened, however, by lax administration. The fund was used, for example, to get rid of undesirable teachers; teachers were retired before they had completed the required period of service; disability allowances were granted solely on the evidence of the applicant's physician; no distinction was made in the cost of retiring men and women; age was not considered as a basis for retirement; teaching experi-

ence outside the city was counted toward service retirement, altho no contributions were paid for this period; and too much reliance was placed on fluctuating revenues from miscellaneous sources.

The problems involved in establishing a new pension plan are obvious. The chief of these is financial, but the cost cannot be calculated without a knowledge of the facts involved and rigid adherence to principles accepted from the start. An actuarial valuation is necessary not only at the inauguration of a new system, but periodically during its existence. Retirement should be on the basis of age, not merely on a service basis, but provision should be made for retirement on the ground of disability, adequately attested by physicians employed by the pensioning authority and periodically reinvestigated. Definite rules must be laid down to govern cases of service outside the system covered by the pension. Provision should be made for the return of contributions with interest in case of resignation, dismissal, or death. But each additional benefit means an increase in the amount of the annual contributions.

The financial problem is complicated by a number of factors. At the substitution of a new plan for one that has failed three factors must be taken into consideration. The first is the problem of payments of obligations already assumed or soon to be assumed; the second is constituted by the body of teachers in active service; and the third by teachers who will enter the service in the future. It is suggested in the present report that the city, after careful revision of the present pension list, assume its obligations, if possible; that in the case of the present teaching force the city assume all the obligations above the amount raised by teachers' contributions up to 8 per cent of their salaries on a new scale graduated according to age and length of service. It is estimated that the city's obligations for these two classes would amount to $27,899,430, which it is recommended that the city liquidate by sixty annual appropriations of $1,233,220 each. The teachers appointed in the future will enter on the basis of an actuarially adjusted scheme.

The chief problem for the city which must consider the provisions for the teachers in relation to employees in other branches of its service is how to meet the cost, which will undoubtedly be great. Two methods are open to it. It may make annual appropriations to meet its obligations as they fall due each year; that is, it may adopt the "cash disbursement" plan. Or, having calculated the future cost, it may set aside during the active service of employees amounts which with interest accumulations will be adequate to pay the pensions in the future; this is the "reserve" plan. The first plan is that most commonly adopted; it is simple and attractive because in the beginning the demands to be met are small, only to increase with amazing rapidity until what is known as the actuarial load is reached. The bankruptcy of most current schemes, apart from their inadequate planning, is due largely to the phenomenal increase of the demands. It is estimated that the present New York City Teachers' Retirement Fund would ultimately require payments amounting to 20 per cent of the pay-roll, if the cash disbursement plan were employed. The reserve plan, on the other hand, takes

into consideration the factor of interest, which accumulates rapidly. It is efficient not merely because it is cheaper, but because each contributor can feel when he pays his own assessment that the city is matching it with its contributions, and that when the time comes for his retirement these two sums will have accumulated a fund to pay his expected allowances. It is calculated that under the reserve plan the apparent cost of pensions is reduced to more than half of the apparent cost under the cash disbursement plan. Under the reserve plan the amount to be set aside is a constant factor for both city and employees, and each generation taxes itself to pay its own pensions; under the cash disbursement plan the city's share is changing and constantly increasing, and the burden is shifted from one generation to the next.

The new plan suggested by the Commission contemplated the establishment of a genuine system of superannuation retirement. Teachers would be retired at the age of 65 unless, upon satisfactory physical examination and approval of the pension board, it was proved that they could continue up to the age of 70. The amount of the pension would vary with length of service and average salary during the ten years preceding retirement. It was recommended that 1.25 per cent of such salary be paid for each year of service with a minimum of 50 per cent of average salary as an adequate retirement allowance in most cases. Disability allowances would be granted, on certification by physicians of the pension board, after a minimum service of ten years at a lower percentage of average salary than the superannuation pension. The cost of these benefits would be divided between the city and the teachers. Teachers now in service would contribute not only for pensions accruing for future service but also to discharge deficiencies accruing on account of back service, age, service, and sex being taken into consideration. In order to ease the burden for the older teachers, it was recommended that a limit of 8 per cent of salary be set, the city making up any difference. New entrants would be required to pay for both the superannuation and disability benefits on a scale graduated according to ages and differing for men and women, while the city would duplicate these contributions. In all cases refunds of contributions would be granted in case of resignation, dismissal, or death with 4 per cent compound interest. The accompanying table gives the percentages of salaries that new teachers would be required to contribute in order to secure the three benefits of superannuation retirement, disability, and return of contributions.

	Men Teachers				Women Teachers			
Entrance Age	*For Service Pension*	*For Disability Pension*	*For Returning Contributions on Withdrawal or Death*	*Total*	*For Service Pension*	*For Disability Pension*	*For Returning Contributions on Withdrawal or Death*	*Total*
20	1.98	.19	.35	2.52	1.70	.53	.53	2.76
25	2.07	.19	.30	2.56	1.95	.64	.46	3.05
30	2.20	.21	.27	2.68	2.21	.79	.40	3.40
35	2.40	.23	.24	2.87	2.50	1.01	.37	3.88
40	2.63	.27	.23	3.13	2.87	1.29	.37	4.53

In March, 1916, a bill was introduced into the Assembly of the State of New York (Lockwood-Ellenbogen Bill) on behalf of the Federation of Teachers' Associations, to reorganize the retirement fund along the lines suggested by the report. The bill departed somewhat from the recommendations contained therein. It adopted a "semi-reserve" plan, a compromise between the reserve plan, to take care of the teachers' contributions, and the cash disbursement plan, to meet maturing obligations. It also introduced retirement on the basis of thirty-five years of service and a disability provision after twenty years of service instead of ten. The basis of calculation of the pension was made uniform for all kinds of retirement, one-seventieth of the average annual salary during the last ten years of service being granted for each year of service, up to a maximum of one-half of such average salary. The bill aroused a storm of opposition among the teachers and their associations, the chief centres being the amount of the contributions and the length of service. Numerous amendments were introduced, which, if passed, would undoubtedly have nullified the work of the Pension Commission and have laid the basis for another crisis in the near future. It was fortunate, perhaps, that their efforts failed. Evidently more time is needed to educate teachers away from the traditional pension principles and to convince them that they are promoting their own interest only in supporting a scientifically elaborated scheme.

Several criticisms may be passed on the otherwise excellent work of the Commission. In their anxiety to avoid the errors of the present retirement fund and to be exact and scientific, they have perhaps tended to neglect the human factor. It may, of course, be perfectly accurate actuarially to demand an 8 per cent contribution from teachers, but it is probable that it is too great a tax on the majority, who may even have made provision for their old age in their own way. It is unfortunate that the Commission did not consider the possibilities of an elastic system. The chief cause of their rigidity seems undoubtedly to have been due to their adherence to the principle of basing the amount of the pension on salary. This was a concession to existing plans rather than a principle of actuarial science. Elasticity and flexibility would have been possible had they based all pensions on actual accumulations, establishing minimum and maximum amounts to be undertaken, and agreeing that the city should duplicate all contributions. The minimum scale would be based on consideration of the amount required to eliminate teachers from service and to make adequate provisions for them; the maximum would be based on questions of expediency and the probable will of the tax-payers. An elastic system would enable teachers to adjust their contributions to their other expenditures, and the increasing city contributions would serve as an inducement to save as much as possible. Such a plan would not violate actuarial principles, and would probably be much nearer the wishes of the teachers. Another problem is raised by the concession made in the bill of a service pension. The experience of the present pension funds of the city points to abuse in this direction, and the experience of other systems indicates that retirement on the basis of service alone

is impossibly expensive. It is probably far more consistent with the requirements of public service to insist on an age basis for retirement, with provision after thorough investigation for the retirement of teachers on account of incapacity thru disability after a limited period of service. In addition it might be deserving of consideration in future plans to introduce provisions for temporary retirement on the basis of disability.

It seems more than probable that a satisfactory settlement of an extremely difficult situation will be reached before long. The large majority of the teachers are ready to accept a contributory plan requiring a higher percentage of salary than is paid at present. The supporters of the flat rate of assessments and pensions will easily be convinced that this plan is more expensive to the low salaried teacher than the high salaried whom they desire to reach. A wide consideration of the teachers' problem must assist the Commission in establishing a system that is both actuarially sound and acceptable to the teachers. For the time being the pensioners on the present list are being tided over the crisis by the release under the Mills Act of $300,000 from the reserve fund.

The Report on the Teachers' Retirement Fund was followed during the course of the year by the Commission's *Report on the Pension Funds of the City of New York*, Parts I and II. Two more parts are promised. The first part deals with the operation of the nine existing pension funds, and part two gives the results of an actuarial investigation of the mortality and service experience of the special and general service funds for municipal employees. Both volumes merely substantiate what were hitherto the general impressions concerning these funds. Briefly, the systems are based on haphazard and ill-considered plans and make extravagant promises. The tax-payers have borne the burden to the extent of 83.46 per cent of the disbursements since the first fund was established in 1857; of the total disbursements 61 per cent has been distributed during the last ten years. Not only were the plans badly conceived in the matter of cost, contributions, length of service required, and disability definitions, but there has been much mismanagement. The result has been the retirement of employees before completing the required length of service, discretionary grants of pensions in excess of the sums promised under the plans, and the connivance at remunerative employment of pensioners. The nine systems present no uniformity in any detail—the cost, the distribution of contributions between the city and its employees, the period of service required for retirement, disability requirements, or provision for dependents. The systems discriminate not only between employees in different branches of the city's service, but even between individual members in the same branch. More than one-third of the employees are encouraged by the funds to retire at an early age, and since even the city reëmploys its own pensioners, there is no bar to prevent a pensioner from earning by a combination of pension and salary more than he earned before being pensioned. In two of the services the pension fund does not operate to retire superannuated employees. The assessment on employees' salaries bears no rela-

tion to the prospective benefit nor to the principles involved, and varies from 1 to 3 per cent. The total annual pension expenditures in 1914 had reached the sum of $5,053,167.84 or 4.8 per cent of the city's pay-roll, with every prospect of increasing. The cost to the city is concealed by the diversion of miscellaneous revenues to pension purposes. Since their establishment the funds have in this way received 70.39 per cent, or $42,255,968.12 out of the total receipts of $60,028,272.45. The actuarial investigation yielded the result that under the existing laws the liabilities of the pension systems for present and prospective pensioners amounted to $215,520,413. To meet this sum there are actual funds of $3,849,653 and the prospective contributions of employees of $8,895,192. The deficiency of $202,775,568 would have to be met by the city.

The Commission recommends centralized management of the systems in order to facilitate uniformity and continuity of administration and uniform interpretation of the principles and requirements. Such a plan would secure full responsibility for efficiency, economy in management, and judicious investment of funds. A centralized board would provide means for securing and keeping adequate records, which would serve for the continuous study of actuarial problems and afford a basis for such adjustments as their interpretations would demand. In the future all the systems must be organized anew; it would be impossible to patch them up as they are now. The new plans must be based on sound principles requiring actuarially ascertained contributions from the city and the employees in order to provide adequacy and security of benefits. These should include superannuation retirement, the age varying according to the occupational group concerned; disability allowances carefully administered; and return of contributions with interest in the case of resignation, dismissal, or death. The Commission, as in the report on the teachers' fund, adheres again to the principle of calculating the amount of the benefits on the basis of average salary during a period preceding retirement. As was suggested above, it would be much better to substitute for this annuities paid out of the accumulations of contributions and accrued interest.

The Commission is to be congratulated on these three important publications. To disentangle out of the mass of material the vital statistics involved was a gigantic task in itself. Only study, experimentation, and exchange of criticism can now lead to reducing order out of the chaos into which the nine pension funds have fallen.

INDUSTRIAL PENSIONS

The development of pension provisions for the benefit of employees of manufacturing and railway companies shows no abatement. Nor is there any departure from the prevailing practice of establishing non-contributory systems based on length of service and a percentage of average salary during a term preceding retirement. The

reason for the establishment of such benefits is in practically all cases declared to be a desire to reward faithful and loyal service. In every instance the pension is contingent on continuity as well as loyalty of service. The intention of the last condition undoubtedly is to prevent employees from striking. The recent labor unrest leads one to raise the question whether the establishment of pension systems in the industrial world has been effectual in securing this aim. In a number of cases employers have reminded employees of the danger they were incurring of losing pension benefits by disloyalty and a breach in the continuity of their service, but in the councils of the employees and their unions the pension plays but an insignificant part. Here and there a few of the older employees who have most at stake have allowed the prospective benefit to weigh with them, but these are in any case probably more conservative and less likely to take an active part in labor troubles. For the very reason that they regard the present type of pension benefit as a measure to foster the feudal relationship between master and servant, the labor unions are on the whole opposed to the movement. Nor in the present state of instability in the labor market does the prospect of a reward twenty or thirty, or even forty, years away carry much weight with the young individual employee, whose chief interest is in general to make the best bargain in the immediate present.

The question of the soundness of industrial pension schemes is not of great importance. The probability is that the ultimate cost has been worked out actuarially in but few schemes. In most cases the amounts to be set aside annually for pension purposes are limited, and the employers reserve to themselves the right to prorate or discontinue payments altogether. There is accordingly no obligation on the part of the employers to carry out their undertakings beyond the sums existing in the pension funds.

Admitting these conditions, it may well be asked what the value of such non-contributory pensions is. From the point of view of the employer they fail in their chief object — to secure the loyalty of the employee; from the point of view of the employee they play no part in his calculations when he feels present conditions irksome, and in any case he has no guarantee that the promised benefit will be paid in full or at all when the time arrives for his own retirement. Such pension systems do not encourage thrift; they fail to improve the personal relations of employer and employee; and they do not serve as means for securing such information about individual workers as will promote efficiency. More important, perhaps, than any of these facts, such systems provide no protection whatever during the working life of the employee, either for himself or for his family, since disability allowances are in many cases discretionary or granted only after a long period of service.

Both the logic of facts and the logic of events point conclusively in the direction of contributory pension systems. Such a change would not be as revolutionary as it appears. Most of the large industrial concerns already have mutual benefit associations that collect contributions for various purposes from employees. The addition of a pen-

sion benefit at the expense of both employer and employee would complete the function of these associations. Membership need not at first be compulsory, nor does a contributory scheme require uniform or graduated assessments. Each employee may undertake to contribute such a sum from his weekly or monthly wages as his circumstances or foresight permit. These sums are duplicated by the employer and kept in a separate account. It is essential, however, that the employee be informed of the amounts of the benefits purchasable for different sums at such age as is fixed for retirement. The introduction of a contributory system involves contractual obligations on both sides and representation of employer and employee on a committee of management. A system on such a basis has the advantage of flexibility; thru it may be provided not merely old age pensions, but it may be used as a savings bank and for insurance purposes. Thus an employee, if he chooses to withdraw from his employment, may have his contributions returned to him with interest; or in case of his death before reaching the pensionable age, his estate is entitled to a return with interest of the contributions made by himself and his employer. Such a contributory plan has all the advantages that are lacking in straight pension systems. It encourages thrift; it ensures ultimate payment of obligations by contract; it affords protection to the employee and his family; it provides a pension which the employee can feel is not only earned by long service but is his own by purchase; and, finally, it brings the employer and employee into mutual relations and gives each a more personal interest and confidence in the other. Where the number of employees is large enough, such a plan, after it has been launched on a sound actuarial basis, may be operated by individual firms; where the number is small, arrangements may be made with insurance companies that are undertaking group insurance of the character described in increasing numbers.

CLERGY PENSION FUNDS

The prevailing interest in pensions has nowhere met with a greater response than among the various denominational organizations devoted to the welfare of the clergy. These bodies are not merely relying on the example in other professions and occupations, but are basing their claims on the failure of philanthropy, of which they have had long experience, to meet the situation. Clergy pension funds need to be established not only to take care of the superannuated members of the clerical profession, but to make the profession sufficiently attractive to the able. Under the present conditions of salary few clergymen can afford to put aside sufficient funds to protect themselves in old age. According to the *Veteran Preacher*, the average salaries in the various denominations are as follows: "Unitarian $1,221; Protestant Episcopal, $994; Universalist, $974; Lutheran, $744; Presbyterian, North, $977; Presbyterian, South, $857; Methodist Episcopal, $741; Northern Baptist, $681; United Brethren, $547; Disciples, $527; Southern Baptist, $334." Practically every denomination has been

aroused to a recognition of the need of supplementing these salaries with the prospect of support in old age or in case of disability, and at present great efforts are being put forth to secure the endowments considered requisite as a basis for systems of retirement. The following table indicates the extent of these activities:

Denominations	*Amount Desired*
Presbyterians	$10,000,000
Methodist Episcopal	15,000,000
Baptist	10,000,000
Disciples	5,000,000
Lutherans	5,000,000
Methodist Episcopal, South	5,000,000
Congregational	2,000,000
Other churches	5,000,000
	$57,000,000

To this must be added the campaign for $1,000,000 planned by a commission representing the Central Conference of American Rabbis and the Union of American Hebrew Congregations for the purpose of establishing a pension fund for Jewish rabbis. Altho these on the whole receive higher average salaries than their Christian colleagues, the campaign is significant as a recognition of the social and professional need of some group provision against the hazards of old age and disability.

To judge from reports of the progress of the campaigns for these funds, it seems very probable that they will be crowned with success. The Interdenominational Committee on Pensions has it in its power to confer a lasting benefit on the clerical profession if, on comparing notes, it can insist on extreme caution and consultation with the best actuarial experience before pension schemes are definitely framed. Acting on this principle the Church Pension Fund of the Protestant Episcopal Church has already found cause, as a result of a more careful revision of its statistical data, to make some changes in the plan which it proposed in 1913. It would be an abuse of the confidence of the public to neglect any measure that would ensure the safety of the funds to which they are so generously contributing.

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PART IV

EDUCATIONAL ENQUIRY

THE STUDY OF LEGAL EDUCATION

Some three years ago the study of legal education, including a study of methods of admission to the Bar, was begun by the Foundation. The work was placed in charge of Mr. Alfred Z. Reed, and has been pushed skilfully and energetically under his direction. The labor involved has been far greater than was anticipated. Altogether this is the most far-reaching and difficult study that the Foundation has attempted.

All the material for this study has been gathered and is partially arranged and digested. The material is complicated and its mass is enormous. The discussion of it is proceeding as rapidly as the nature of the case will permit, and it is hoped that the report may be ready within the coming year. Some of the difficulties which have been encountered in gathering this information may perhaps be interesting, and may throw some light upon the precision of such enquiries.

In the last statement of progress in this study it was recorded that of resident law schools founded prior to 1913, all had been visited except a small but important group near the Atlantic coast. These schools, which included Harvard, Yale, the University of Pennsylvania, and those of New York City, were visited during the past year. Thus ends the itinerant portion of the enquiry, extending from October 20, 1913, when Mr. Reed began his visits of law schools, to May 12, 1916, when he completed the last one. Three hundred and sixty-five days in all were devoted by him to this phase of the work, as appears from the following table:

	Number of Schools visited	*Number of Days absent from Office*
1913–14	55	154
1914–15	60	136
1915–16	17	75
	132	365

The distances of the West account for part of the time consumed during the first year, while the size and complexity of long-established Eastern institutions are reflected in last year's figures.

In general from a day and a half to a full week has been devoted to a school of any pretensions. The problems involved in the teaching of law are in many ways more unsettled, standards of comparison are less clearly defined, than are those of medical education. Making allowances for those portions of the year when regular school sessions are interrupted by vacations or examination periods — making allowances also for the exigencies of office work covering other phases of the enquiry — it would have been difficult for a single visitor to have collected in a shorter time the information we now have; while if additional members of the staff had been assigned to the task, the problem of coördinating this mass of material would have been almost insuperable.

The delays incident to such work are illustrated in the history of a preliminary question blank sent out in May, 1913. It was returned within four months by forty schools, or a little less than one-third of the whole number. This is about the usual

proportion of replies that may be counted on, where strong motives of self-interest are not appealed to. Friendly reminders brought the total, during the next six months, up to ninety, or just about two-thirds — not all of them by any means filled out fully or carefully. However, no real delay was occasioned by this, for it was during these months that our enquiry into bar admissions was being organized, and Professor Redlich was being accompanied in his visits. Furthermore, no great reliance can in any case be placed upon information secured by preliminary "questionnaires" from institutions so different, one from another, as are American law schools. The chief function of these blanks has been to indicate which schools were cordially disposed, and to give a general view of these, which lightened the labor of the actual visits.

The blanks were taken back to the schools. Where answers had already been given ambiguous points were cleared up, and the replies brought down to date. In other cases the information was written down *de novo* on the spot, to the extent to which the elaborateness or good will of the institution made this formal approach appropriate. The information has been vitalized by glimpses of student classes of each year at work and by informal conversations with members of the faculty. Throughout, printed forms have been treated, not as procrustean pigeon-holes into which the manifold developments of a living organism must be forced to fit, but rather as partially systematized memorandum pads, on which are set down the results of personal enquiry.

The advantages of this method of procedure are obvious. Its disadvantages are perhaps inseparable from all attempts to obtain a true picture of complex facts, rather than to support a preconceived theory. These blanks and supplementary ones contain a large mass of first-hand data, covering such matters as the history and organization of the school, the division of the curriculum, the working of the elective system, the rules for the admission and the graduation of students. Some of the facts recorded are intrinsically interesting and even entertaining. Such, for instance, are the picturesque chains of events by which several schools — notably correspondence schools — have come into being. Others are highly technical and dull, such as the dry but apparently necessary details as to length of class exercises, of academic years, of vacations, of examination periods. All have been recorded not in a spirit of judgment that this is good and that is bad, but rather in one of scientific curiosity, not unmixed with amazement that institutions professedly pursuing similar ends should diverge so frequently in the paths they have taken. As has already been said, all the information is only partially systematized in the blanks, and necessarily so. To cite one illustration: Everybody who is interested in education knows that around the term "special student" cluster a variety of practices and a variety of problems. But no one who has not tried to get at the heart of this matter in many schools can fully appreciate the varying terminology, the many angles of approach, the confusing interpretations of statutory and customary law by which distinct categories of students — special, unclassified, irregular, partial, hearers, auditors, conditioned, certificate — come into being. To state clearly how the schools differ in this respect from one another — to indicate fur-

ther which practices seem commendable, which are open to criticism, which are trivialities not worthy of mention — is only one of many tasks which cannot be completed until the material is all in, and cannot be completed then without much thought and patience.

In addition to the somewhat loosely organized information mentioned, secured directly from the deans or other responsible authorities, forms were printed to cover statistics of law libraries, of financial operations, and of student attendance. In schools of any pretensions which would permit it, the registrar's records of admissions and grades have been inspected, a census taken of the entering class, and copies made of the academic history of from six to a dozen students taken at random. The interpretation of this material is in itself a considerable task if it be borne in mind that it is always easier to be captious than to be fair, and that the mere existence of an adequate recording system is a sign of merit. It is hoped, furthermore, in connection with the advancing standards of the schools, to indicate the influence of the United States Commissioner of Education, of the American Bar Association and Association of American Law Schools, and to summarize current discussion, including that aroused by Professor Redlich's paper. And finally, since law schools can be understood only when seen against the background of the conditions they have to face, a very considerable body of material has been collected bearing upon the systems of admission to the Bar, the admittedly unsatisfactory condition of American law and legal procedure, and the efforts which have been made or are being made to better these conditions. It is obvious that only by a process of rigorous compression and omission can our report be brought within reasonable limits. That other reasons than the abundance of the material have contributed to our delay may be made clear by a few specific illustrations.

Our library blank, calling for an enumeration of the books under the heads of Reports, Statutes, Textbooks, etc., was plainly headed: "Bound Volumes." This blank was left at a given law school in the spring of 1914. Reminders sent out in December of that year, and in April and October of the year following, finally produced the figures in November, together with the dean's honorable explanation that each volume of the National Reporter System had been counted as three. An immediate request for figures corrected to correspond with those from other schools, followed by a reminder the following April, finally produced revised figures in July, 1916, or more than two years after the original visit. The number of United States (state and federal) Reports in the school library was reduced almost one-half by this painful process.

In another institution the preliminary information requested did not appear for nine months. Information as to student attendance arrived fifteen months after it was asked for, and then only in an elementary form and after appeal to a higher authority. It took three exchanges of letters to secure from this same authority a verification and correction of financial information originally given us as "substantially correct."

In the preceding instance, we should not have secured a complete picture of the financial operations from the higher authority unless we had secured the "substantially correct" information first. The general advisability, however, of not accepting, as final, figures secured from any source other than the Treasurer's books was well exemplified in another case, where there was a difference of $750 between the appropriation for library purposes as given by the dean and the amount found to have been actually expended. It has been the exception, rather than the rule, that the individual instructors' salaries, as given by the dean, when totaled up, agree with the total expenditures for instructors' salaries, the discrepancy in one case being as high as $4000.

In one important institution, visited in the spring of 1915, and, like all those already referred to, a member of the Association of American Law Schools, library and student attendance figures first requested in the spring of 1915 and again in October, in April, in June, and in August, 1916, have now, after fifteen months, not yet arrived, altho undoubtedly to be expected.

It would not be easy to do justice to our efforts to secure from four busy law school deans the gradings of specimen bar examination papers referred to in my last Annual Report. By the dry method of careful statistical count, it may be recorded that in the prosecution of this interesting bit of laboratory experimentation forty-six letters or telegrams have been exchanged with members of this single examining board, and no less than one hundred and eleven with the deans: fifty-nine between April 7, 1915, when the notion was first broached, and September 1, 1915, when the preliminary conference was held; fifty-two since then. The net result of eighteen months' labor is that the examining board and one dean have sent in their grades; three deans, of whom one had never fully committed himself to the work, are still to be heard from.

There is nothing particularly unusual about the preceding episodes, in which there has been no question as to the good faith and good will of the participants. Advancing years, illness, over-sanguine estimate of how much work can be crowded into a day, honest misunderstanding, necessity of responding to unexpected and imperative calls, lack of an administrative force adequate to cope with additional burdens,— these are among the causes which must be expected to delay what is essentially a coöperative undertaking. Of a different character are certain evasions that have been practised upon us.

Only four schools have definitely declined to participate in any way in the enquiry. Only three have greeted us cordially at first, and then definitely withdrawn when it was discovered that we were attempting a searching study. But in addition one school has pursued the policy of failing to respond to our repeated advances in any way, while several others have neglected to send in specific categories of information. The precise number of these latter is difficult to state, for if, on the one hand, we have never stood upon our dignity in the matter of making repeated requests, on the other hand it would have been an excess of method to push very hard in the case of obviously

feeble institutions. Confining ourselves to schools sufficiently developed to be a power for good or ill in their communities, the number would be about ten. Concerning these schools—none of them, of course, of the first importance, and some of whom may yet prove to be repentant sinners—the statement may fairly be published that certain information requested by us (usually of a financial nature) has been neither refused nor furnished.

All things considered, however, the enquiry has proceeded with much less friction than might have been anticipated in view both of its extent and of its delicacy. A regrettable misunderstanding of our attitude toward denominational education, alluded to in my Eighth Annual Report, has simmered down to the refusal, already noted, of four (out of sixteen) Roman Catholic schools to participate in the enquiry at all. Our previous study of medical education, altho bequeathing to us a certain heritage of institutional antagonisms, has in the main been of assistance by stimulating interest and confidence in a profitable outcome. Because of the absence of a united body of professional opinion, we have sought light on many questions where light was not to be found; have wasted much time learning elementary facts, and turned temporarily sympathetic ears to some fanciful propositions. The secretary of one school quoted the libel laws to Mr. Reed, and the president of one university intimated that he might give him a job, but on the whole the best of feeling has prevailed. The schools have been singularly patient under our exactions; gratifyingly hopeful that out of our joint labors results of value may ensue. We on our side have tried to remember that it is pleasanter to ask questions than to be asked them, and that if some minor educational misdemeanor should not in justice be imputed as a cardinal sin, still less should we let our patience be tried and our power of judgment warped by the appearance of normal human traits among our co-workers. Procrastination and evasion, misunderstanding of motives and undue sensitiveness to criticism, even clumsy efforts to intimidate the supposedly weak or to stand in well with the supposedly powerful—these are all unimportant. Such manifestations of human nature must be expected when individual interest and institutional pride are touched, and while they necessarily complicate, and in the aggregate delay, our work to some extent, they are passing details, not to be taken seriously.

It is in no spirit of excuse that this account of our delays is rendered. We, after all, are ultimately responsible for the scale and pace at which we proceed; whether, when we receive a temporary check, we shall pass on, or whether we shall pause to smooth out a difficulty. There is of course a limit beyond which encyclopedic comprehensiveness becomes a vice. But there is hardly a limit to the precautions which should be taken against committing unintentional injustice. We believe that much is expected of this enquiry, partly because of the time and labor which already have been put into it, but more because confidence is placed in its fairness and honesty. We hope to show that this confidence is merited.

ENGINEERING EDUCATION

DURING the year the study of engineering education that the Foundation has undertaken in coöperation with the joint committee of the national engineering societies has progressed along the four lines mentioned in the last report.

First, the investigation of the conditions and forces that made necessary the establishment of engineering schools in the United States has been completed. The intimate relation between the founding of these schools and the industrial development of the country, and the aloofness of the regular school system from this development have been traced, the nature of the popular demand that won public support for schools of agriculture and mechanic arts has been analyzed, and the ideals and aims of those who organized the first of these schools have been outlined.

Second, the appeal to the practical experience and mature judgment of the engineering profession for a definition of the requirements for success in engineering has been answered by more than seven thousand members of the national societies. As a result, there is conclusive evidence that for the engineering graduate personal qualities, such as character, judgment, efficiency, and understanding of men, are no less important than knowledge of the theory and practice of engineering. These first two sections of the report are now completed.

Third, twenty-two schools have been visited, their aims and purposes discussed, their records investigated, and their methods of administration and instruction studied. The data collected are being analyzed with a view to making constructive suggestions as to how the work of the schools may be made to conform to the ideals of the engineering profession.

Fourth, the experiments for evaluating objective methods of measuring the success of school work have been continued by Professor E. L. Thorndike at Columbia University, Massachusetts Institute of Technology, the University of Cincinnati, Wentworth Institute, and the Westinghouse Electric and Manufacturing Company. The results of these experiments are practically ready for publication.

STUDY OF THE TRAINING OF TEACHERS IN MISSOURI

THE Missouri study of the training of teachers is approaching completion. The members of the Foundation's staff have had assistance during the past year from Professor William C. Bagley, of the University of Illinois, Professor George D. Strayer, of Teachers College, Columbia University, Professor Charles A. McMurry, of the George Peabody College for Teachers at Nashville, Professor Walter F. Dearborn, of Harvard University, and from Professor Homer W. Josselyn, of the University of Kansas. The coöperation of Missouri teachers and institutions in the final result has been marked and gratifying. Over eighty-five per cent of all the teachers in the state have

voluntarily placed the necessary facts at the Foundation's disposal, while certain groups, such as college and normal school instructors, high school teachers, town and city superintendents, have replied in still larger proportions. This ensures a nearly true picture of Missouri conditions in aspects never before available in any state.

One significant result of the study has been to emphasize the fact that much common ground exists among all institutional agencies for preparing teachers. Historically universities and normal schools in America have approached the problem from divergent and often apparently antagonistic points of view. The normal schools, born of an immediate and crying practical need and bred on the popular conviction of democratic serviceableness, have lived thru their period of uncritical evangelistic enthusiasm to a point where, while no less enthusiastic, they are consciously analyzing and refining their procedure with the best help obtainable. The universities, on the other hand, have seen a great light. Whereas the study of education was once a minor function of philosophy merely, the recent history of higher institutions has no more conspicuous feature than the rise of extensive professional departments engaged on a large scale in the scientific preparation of teachers for their work.

This development in two distinct sets of institutions has been notably convergent. Teachers and officers in normal schools are more and more acquiring university training or are selected from university graduates. Normal graduates are among the better students at the university, and their presence has in turn reacted beneficially upon its work. Both institutions use the same literature, each making text-books for the other; both conduct the same types of experiments, engage in "surveys" and "tests." In the best schools, and elsewhere so far as successful work is done, both seek to regulate their practice by purely scientific considerations. In view of this largely common interest and practice in the same professional undertaking, the attention of the study has been naturally drawn to such proposals as may clarify and reinforce this essential identity of attitude.

Both the content of the teacher-training curricula and their administration are inviting fields for such unifying efforts. It is apparent upon the most casual examination of a random collection of normal school and university programs in this department that for the preparation of a teacher of a given subject the prescriptions vary widely both in character and quantity. Local differences offer no explanation; the variations seem traceable usually to differences in habit, temperament, and point of view of the individual program-maker, or to the personal equipment or bias of the instructors whom he directs. Many able administrators confess that they are quite at sea in the matter and would welcome a reliable clearance of opinion as a suggestive guide.

It has seemed, therefore, that one important service which this study might render would be to provide for the preparation of a carefully considered statement of what, in the light of the best current experience, might stand as preferred professional curricula for different teaching positions. To have due significance and weight these

should, of course, be prepared upon a coöperative basis, and with this idea those assisting in the study have worked out a tentative statement indicating not only desirable subjects and the respective time allotments, but going into some detail as to the scope and purpose of each course. It is proposed to submit this to the formal criticism of all institutions that are willing to participate. Such suggestions as may be received will be thoroughly studied, and a final statement will be made up by a representative group of competent experts.

In the administrative field the problem of unification of professional training is much more difficult, as it involves not merely the revision of method and content of procedure, but the modification and coördination of long-established institutional prerogatives. Yet the logic of the situation is even more compelling here than in the matter of curriculum. As long as the several institutions, with maximum exertion, contributed but partially to meet the need, legislation lagging far behind, there was but rare contact and negligible friction. But with the recent rapid increase of legislative demands upon the institutions as a whole, with a view to lifting, notch by notch, the educational level of the entire teaching body, the question of differentiation and definition of function becomes paramount. As has been pointed out, the two types of institution concerned no longer represent conflicting theories of education; such variations as still exist are destined speedily to disappear. They are coming to represent, in one homogeneous movement, a tide of professional training that has rapidly overflowed all traditional bounds and constitutes by a wide margin the chief educational obligation of any commonwealth. This is essentially one thing, and administrative encroachments and overlappings must be readjusted to the new situation. What seems to be needed in each state is a common functional organization of all forms of this professional training, primarily to facilitate a clear and unhampered estimate of the state's requirements in all directions, and, in the light of these, to adjust the necessary agencies to their fulfilment.

The achievement of such an organization depends largely, of course, upon the existing situation in each state. In Missouri this seems unusually favorable, and it is hoped to suggest steps whereby such an arrangement may be effected.

AGRICULTURAL EDUCATION

The recent movement for the promotion of legislation in favor of grants from the Federal Treasury for vocational education makes a study of the legislative history of the previous grants from federal sources of especial interest. With a view to throwing some light on the justification and working of such legislation and on some of the reasons underlying its promotion, Dr. Kandel of the Foundation staff has prepared a study of the Legislative History of the Federal Grants for Education, which will be published during the course of the year as a Bulletin of the Foundation. This study

traces the history of the movement for the provision of facilities for agricultural education and the agitation for a share of the federal resources for this purpose. The connection of Senator Morrill with this activity and the influences that affected him are indicated. The debates in Congress on the different bills are analyzed to discover what educational conceptions were in the minds of the legislators and whether other considerations weighed more heavily. Some statistical evidence is presented to indicate whether and how far the federal resources would have met with success without the aid of state expenditures. Finally, some conclusions are drawn from the evidence as to the wisdom of distributing federal grants for any movement before a definite conception of the needs and some formulated plan of procedure have been developed.

COLLEGE ENTRANCE CERTIFICATES

There are so many reasons for the adoption of uniform blank forms for college entrance certificates that the Carnegie Foundation has undertaken a study of the certificates now in use in order to prepare a tentative blank for approval or amendment by the various associations and institutions concerned. There is at present great divergence in the detailed procedure of college admissions, and there are tendencies in some parts of the country toward the elaboration and elsewhere toward the simplification of certificates. Thus, the latest blanks of the New England College Entrance Certificate Board are very simple, since that board performs in other ways some of the functions that are ordinarily performed by means of certificate blanks. On the other hand, the new certificate of the University of North Carolina is very elaborate, asking not only the usual questions, but also the number of pages completed in each text-book, and the percentage of the entire book that this number of pages represents; while the number of months devoted to each subject must be entered twice. A school principal would be greatly burdened in filling out any large number of such certificates. There are even considerable variations of practice in different parts of the same institution. At Northwestern University, each of half a dozen schools—dentistry, engineering, law, liberal arts, medicine, and pharmacy—has an admission certificate differing from each of the others in size, form, and content. Whatever exists has, of course, some reason for being, but there would appear to be few reasons for preserving and many good reasons for abandoning so great a divergence of practice in the same institution.

A comprehensive summary and distribution and discussion of all of the information that is available concerning the problem can, in any case, do no harm; and it may be an aid to progress. The experience with uniform blanks of the North Central and the Southern Associations of Colleges and Secondary Schools and of the Ohio, Pennsylvania, and Texas Associations of Colleges has been more than satisfactory. In regions where uniform certificates are now used very few educators, if any, would prefer to return to the old chaos of all sorts and conditions of blanks.

For the purposes of this discussion the problems of admission to advanced standing are omitted. They were considered quite fully in the Seventh Annual Report of the President of the Carnegie Foundation in 1912, and a uniform certificate for such admissions was presented and discussed in the same year at the third meeting of the American Association of Collegiate Registrars. The further settlement of problems which concern advanced standing will be considerably aided by similar progress in the more general procedure of college admissions.

An ideal certificate for college entrance is obliged to satisfy a kind of triple entente, composed of the student, the recorder, and the interpreter. To present the student's characteristics adequately, a blank must be full and complete. To be tolerable to the recorder, it must not be too difficult to fill out. To satisfy the interpreter, it must be clear and definite. Since some of these characteristics are mutually exclusive, the practicable blank must be somewhat of a compromise.

For an understanding of the student we need all possible details concerning his previous schooling, — the circumstances and the date of his entrance upon it, the length of his curriculum, his program and his studies, with courses, pass marks, conditions, and deficiencies in each; all matters of academic or personal discipline, and final details as to graduation, good standing, and honorable or compulsory dismissal. It is desirable to have the date of entrance upon his secondary studies given directly rather than indirectly as in the North Central blank. It is necessary to know also the number of years spent in the high school, since even state high school inspectors have been known to find as many as twenty college entrance units in two years of work, — I have heard of one student who was said to have accumulated 450 college entrance units in four high school years. One cannot agree, further, with the statement of Indiana University that exact grades are not essential in an entrance certificate, provided the student has a passing grade; nor with the request of Johns Hopkins that the school translate the student's marks into the university's method of grading. An admission certificate needs, further, to be adjustable to the ever increasing number of subjects that are being offered for college entrance, altho scarcely including arithmetic, as Lafayette College does; and to the distinction between class and laboratory work, which is not provided for on the North Central blank. In working with some schools, it is important to know what text-books have been used and to what extent. These are extremely comprehensive demands, but even so, it may be possible to meet them all by a single blank, which will represent both the student and his school fairly, which can be used for entrance either by certificate or by examination, and which may perhaps serve both for admission and for advanced standing. Even the record of health conditions to which Goucher College gives particular care, or the vaccination certificate required by the University of Texas, can be entered upon the same blank, as can the statement concerning personal characteristics, such as interest in outdoor sports, which is desired by Reed College. This feature of entrance certificates might well be much expanded, altho there are natural differences of opinion as to what

are the easiest methods of securing miscellaneous personal information concerning the student and general remarks about him from his principal. Throughout, it is necessary to remember that this extremely important matter of transferring to a college all the information available concerning a student is in constant danger of being reduced to a matter of burdensome routine, when it is really of almost incalculable importance to the student and the college, and furnishes the principal with an opportunity to crown his work by sending the student wisely and happily upon his further academic journey. It may be doubted whether there is any other single document connected with the student's career that is so significant as this entrance certificate, and everything possible needs to be done to prevent its becoming merely an item of perfunctory routine or of painful endurance.

In the interests of the recorder it must be remembered that unnecessary minuteness is indefensible, and that information may sometimes be given by merely checking printed items, as in a dozen New England blanks, or by underscoring items, as in the blanks of the University of Virginia and the University of the South, or by canceling items, as in the blanks of half a dozen institutions. On the other hand, the customary arrangement for filling in small spaces is preferable to the certificate of the Catholic University of America, which requests that the recorder indicate, on a practically blank sheet, the work done in each of the required subjects, the number of years, hours, the text-books, and so on. The University of Pennsylvania, the University of Pittsburgh, and Radcliffe College expect the recorder to write the names of all subjects taken. The Lafayette College certificate prints a list of subjects, and gives the recorder entire freedom to add anything that may occur to him in connection with them. Such invitations to a recorder to expend effort that the institution might spare him must often be met by a failure to give information that is essential. On the other hand, it is unnecessary for Tulane University to print the words "times . . . weeks" after each subject, when once at the head of a column would serve. The fact that only 12 blanks out of 145 provide for the New England system of recording a subject by means of a check mark only, probably indicates a realization that it is easy for a recorder to omit a desired check mark, so that the interpreter becomes puzzled to know whether a student failed to take a particular subject or whether the recorder merely forgot to check it. This question also arises with those certificates which give a student credit for each subject that is underlined, or is not canceled from a printed list. It is essential that a certificate be perfectly clear concerning the subjects which the recorder desires to certify. Probably the most satisfactory method is to indicate the subjects that have been taken by placing opposite them the amount of time that has been spent and the mark that has been attained in each,—facts which the interpreter wishes to know also,—and placing a dash opposite subjects that have not been taken, so that all blank spaces on the certificate are filled in, in one way or another. A minor matter, but one that would help many of those who fill out certificates, would be to have the space between the lines of all of the printing on the blank correspond to the usual one-sixth or one-

third of an inch spacing between the lines of a typewriter, so that certificates could be typewritten without any special adjustment. This is the happy opposite of the requirement of the University of Tennessee,—that its certificate should be "filled out in the handwriting of the Principal. It should not be typewritten." The otherwise admirable uniform blanks of the Association of Colleges and Secondary Schools of the Southern States and of the Association of Pennsylvania Colleges are, like the blanks of many individual colleges, somewhat lacking in that the certificate and the signature of the principal come at the beginning of the blank and do not appear intimately associated with the statements which follow. We are so accustomed to signing documents at the bottom rather than at the top that there is strong argument for the practice of the 41 institutions which have the signature of the recording officer below and in close association with all that he has recorded. There is even some justification for the practice of a score of institutions in desiring the principal to sign each page. It is difficult to understand the advantages of Oberlin's method of having the principal's certificate on an entirely different blank. The labor entailed by the request of the Mount Holyoke and Wells College certificates for a signature from the teacher of every subject as well as from the principal of the school can scarcely be necessary in ordinary cases. It is hard to see how many colleges can justify their endeavor to shift the responsibility of the college to the school, by requiring the principal to say, "I certify that . . . has fully completed the requirements for admission to Blank College." That is for the college to determine.

Some of the questions that arise concerning admission certificates from the point of view of their interpretation are: whether courses should be given their departmental titles, which are not always clear, or their popular or descriptive titles, which are apt to be clearer but longer; whether the courses should be grouped, in the usual fashion, by departments, or be arranged alphabetically, or under major subjects, or as required and elective subjects, or in chronological sequence; and whether they should be followed by spaces for the year and the term in which they were given. Some groups of institutions, like those represented by the North Central Association, feel that the chronological sequence in which subjects have been taken is so important that they have recommended a new set of college entrance units which give more credit for work occupying, say, a fourth of a year toward the end of a high school course, than for work occupying the same period during the earlier years. A good deal of improvement is possible in the arrangement of the subjects on a certificate. In the Williams College certificate each subject is arranged somewhat differently, and described in a rather conversational form, so that it is necessary for the official who fills out the blank to read the text which accompanies each subject, in order to see in what particular way the questions concerning it are to be answered. It must baffle the ingenuity of even those who are familiar with this blank to draw conclusions from it. The Smith College certificate also is ingeniously confused; the space for entering the amount of work that has been taken in Greek and Latin appears in the first column of the page,

while for mathematics and history it appears in the second column; the number of times a week a subject has been taken must be entered sometimes in the second and sometimes in the third column; the date of final examination sometimes in the third and sometimes in the fourth column; the text-books that have been used sometimes in the first column and sometimes in the last. It is difficult to see any reason for such an arrangement, but it is easy to see how its great inconvenience must lead to many errors.

In every case the interpreter needs an explanation of the units of credit that are given, the number of units required for graduation, the number of weeks in the year or term, the number of recitations in the week, and the number of minutes in the recitation. He needs, further, an explanation of pass marks, of marks for standing, and of those used for conditions and deficiencies and their removal. We have discovered one institution in the country that uses the mark "F" for passing and "P" for failure. The custom of ranking students according to their relative position in class is fortunately extending; if this information is to be really significant, however, the size of the class should also be given. The interpreter needs further records of discipline, warning, and probation, with the dates of each, and finally, that the blank may be entirely complete, there is need for a place for the rating given by the college, with the signature of the approving officer. Only thirty-seven blanks now include this feature, but no admission certificate is complete without it. One is impressed during visits to various institutions with the frequency of a lack of interpretation, or rating, or balancing of entrance certificates. One sees little reason for not having this conclusion of the whole matter entered upon the original blanks themselves, and one sees many reasons why it is unsatisfactory to enter it upon another blank, as at Oberlin, or to have it in books, or memoranda, or letters, or in another office, or nobody knows exactly where, as in many institutions. It is a principle of academic as of other bookkeeping that one should total up each page of the account, and this can be done in the matter of admissions only when the original certificate becomes a record, after the student has entered college, not only of the work presented for entrance but also of the admission officer's interpretation of that work.

When it comes to the question of filing, the size and shape of a blank assumes importance. Thus the desire to have blanks of a size that makes it possible to enclose them with letters in ordinary envelopes must be considered in connection with the fact that blanks of this character do not themselves easily enclose the quantities of correspondence and other illuminating matter which it is frequently desirable to file with them. The entrance certificates of 110 institutions represent 43 different sizes, varying from the Franklin College blank of 4½ by 7½ inches to the Clark College certificate, which is a foot long and a yard wide (14 by 34 inches). The different parts of a number of institutions have blanks of different sizes. A general recognition that the ordinary business letter size is the most convenient is indicated by the fact that sixty institutions have their blanks 8½ by either 11 or 12 inches, the size recom-

mended by the National Conference Committee on Standards of Colleges and Secondary Schools.

Of 145 blanks 68 have two pages, 72 have 4, 4 have 6, and 1 has 8. The printing on the blanks covers one page in 31 instances, two pages in 41, three pages in 14, four pages in 55, five pages in 2, and six pages in 2 instances. There is no printing whatever on the first page of the Worcester Polytechnic Institute certificate and none on the last page of 38 certificates. The printing on 73 certificates is horizontal only. In 42 certificates the printing runs differently on different pages. On the Cornell, Drury, Pennsylvania State, and Rutgers certificates one must hold the blank in three ways in reading two successive pages. The four page blank of Hamilton College reads horizontally, then vertically, then horizontally again. Of 167 blanks of all kinds having to do with admissions 71 are printed for folding, 92 are for flat filing, and 4, like those of Syracuse, are punched for binding. In nine institutions two systems of filing are in use.

A four page blank may be printed horizontally throughout, and forms the most convenient enclosure for other papers. A four page blank also lends itself to a convenient arrangement. The first page may bear all general statements of the recommending officer; the last, all general memoranda of the receiving institution; the second and third, inside, pages, all of the minute details of the student's record. This facilitates the reference to the general facts which is constantly necessary, without distracting the attention by the many details which are usually examined and summed up once for all. Such blanks of standard size may be filed either by the older method of folding, or be enclosed in binders, or be filed flat like letters, either by themselves or in large envelopes, which may be endorsed or may bear printed spaces for records on the outside. In one or two institutions such an envelope becomes the student's permanent record, having printed spaces for his college record on the outside, while admission and similar certificates and correspondence are filed within. Such a system avoids the laborious and possibly erroneous copying of the information of the certificate, as at the University of Illinois, first on a permit to enter, and then on a permanent record. Sundry further details, like the use of safety paper, as at the University of Illinois, or of different colored papers for different blanks, as at Goucher College, are incidental.

A general summary of 95 complete blanks indicates that
- 89 print the names of the subjects taken,
- 76 ask the date of graduation,
- 73 the number of times a week a subject has been taken,
- 67 the number of weeks a subject has been taken,
- 64 ask for scholarship, grades, or relative standing,
- 54 ask for the names of text-books,
- 51 for the length of class periods, and
- 43 for the age of applicant.

It may, therefore, be assumed that these facts are in general demand.

One may wisely add the number of laboratory hours, desired by 30 institutions; the year in which the course is taken, desired by 27; an explanation of the pass marks, desired by 25; and a place to enter the relative standing, asked for by 13.

It may be assumed with equal safety that the portion of the text-book completed, desired by 31 institutions, or the number of pages, desired by 9, are not essential; that it is not necessary to print the number of units opposite each subject, as 18 institutions do; altho one may leave a space in which to write them, as 14 do; it is certainly laborious to write the name of each subject, as 9 institutions expect; or the references to the catalogue desired by 3 institutions.

A combination of separate features that have each commended themselves to a large number of our representative institutions results in a form of certificate which, while remaining simple, appears to be superior to any blank that is now in use. Such a form is therefore presented on following leaves, for the discussion of any organizations and institutions that may be interested. In actual use a size of page about one-third larger is recommended. Few institutions will desire all of the subjects given in this blank. Should, however, even more space be desired, some of the blank space on page four may be used. In many cases the college will indicate, by rubber stamp or otherwise, that various portions of the blank need not be filled out by schools which have previously communicated the desired information concerning length of year and period, marks, text-books, and so on.

It will be noticed that explanations concerning the institution's requirements for admission are omitted from the certificate. These complicate the certificate and can be expressed much more fully and more clearly on an accompanying circular.

The Foundation will be glad to receive any criticisms or suggestions concerning the blank, and will, if requested, furnish institutions with blanks for experimental use.

[illegible]

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BLANK COLLEGE
Blankton, Mass.

A. Application for Admission to Candidacy for the Degree of ....

(This page is to be filled out and signed by the applicant, before presenting the blank to the principal of his school for certification and transmission to the college not less than................weeks before the opening of the session which the student desires to enter)

Full name of applicant.. ....
(Last name) *(First name)* *(Middle name)*

Place of birth..Date of birth..

Home address..
(Street number, city or town, county, state)

Name of Parent or Guardian..

Address...

Previous training:

	Name	Place	*Date of entrance*	*Date of leaving*	*Diploma granted*	*Date of receipt*
Elementary School	....	....	....	....	....	....
Secondary School	....	....	....	....	....	....

Other study..

(Detailed and official records must be submitted for all work for which credit is desired, a separate blank being used for each institution attended. As many blanks as are needed will be supplied. Do not send diplomas unless requested)

In what studies are you especially interested?...

....

What are your general wishes with regard to future study? ....

....

Toward what vocation are you working? ....

....

What particular curriculum do you wish to take at Blank College? ....

....

When do you wish to enter Blank College? ....

Signature of applicant

Date..191...........   ....

(The College will be glad to have any fuller information that may seem helpful, in the form of letters from the applicant or from any one, in addition to the officers of his school, who is interested in his work and plans)

B. Certificate of Secondary School Study, and Recommendation for Admission to College

(This section is to be filled out and signed by the principal, or some other authorized officer of the secondary school. The blank should be sent to the college, not given to the student. The record of each institution attended should be entered on a separate blank)

This is to Certify: that the applicant, M..

(1) was a student in..at..for.........................years,
(*Name of school*) (*Place*)
beginning..191......and ending...191......; (2) completed satisfactorily the subjects indicated below, except for..as indicated; (3) his general standing being..............in a graduating class of..............members. (4) He has had a satisfactory personal record, except for..; (5) was graduated on..191......; (6) left the school in good standing; (7) is a person of good moral character; (8) is in good health, except for...; and (9) is hereby recommended for admission to Blank College

Subject	Year of Course Please check 1	2	3	4	No. of weeks studied	Periods per week	Mark, grade, or standing	Textbooks	Remarks	Comment by Blank College
Agriculture										
Biology: Class work										
Laboratory Notebook										
Botany: Class work										
Laboratory Notebook										
Chemistry: Class work										
Laboratory Notebook										
Civics										
Commercial Studies (*specify*)										
Drawing: Freehand										
Mechanical										
Economics										
English: Grammar										
Rhetoric and Composition										
Literature										
Classics: prescribed										
Classics: not prescribed										
French: First year (*Give number of pages read*)										
Second										
Third										
Fourth										
Geography: Physical										
Political										
Industrial										
Commercial										
German: First year (*Give number of pages read*)										
Second										
Third										
Fourth										
Greek: Elementary (*Give books, orations, or pages read*)										
Xenophon										
Homer										
Composition										
Sight reading										
History: Ancient										
Mediaeval										
Modern										
English										
United States										
Household Arts: (Domestic Art, Domestic Science)										
Industrial Arts: (Manual Training)										

Subject	Year of Course Please check 1	2	3	4	No. of weeks studied	Periods per week	Mark, grade, or standing	Textbooks	Remarks	Comment by Blank College
Italian: First year (Give number of pages read)										
Second										
Third										
Latin: Elementary (Give books, orations, or pages read)										
Caesar										
Virgil										
Cicero										
Composition										
Sight Reading										
Prosody										
Mathematics:										
Algebra to Quadratics										
Quadratics, etc.										
Advanced										
Geometry: Plane										
Solid										
Trigonometry										
Music: Appreciation										
Harmony										
Piano, violin, voice										
Physical Education										
Physics: Class work										
Laboratory Notebook										
Physiology: Class work										
Laboratory Notebook										
Spanish: First year (Give number of pages read)										
Second										
Third										
Zoölogy: Class work										
Laboratory Notebook										
Other Work Taken by the Applicant in the School (*Please enter this on page 4, if the space here is not sufficient*)										

The average length of a recitation period in this school is..............minutes, of a laboratory period ....minutes. The passing grade is..............; the certificate grade is.............. The unit of credit is..............; the number of these units in an ordinary year of work is.............; the number required for graduation is.............; the number earned by the applicant was..............

The applicant is worthy of special encouragement in..

....

He needs particular guidance in...

(*All information concerning the student's individual nature, needs, and desires will be very welcome; preferably in the form of a special letter*)

This school is accredited for college entrance on certificate by the following associations..................

....and the following universities and colleges...

....

(*Blank College would be glad to have a catalogue or other statement of the curriculum of the school and will welcome suggestions concerning this form of admission certificate, or any other matter that will improve the adjustment of secondary school and college*)

(*Signed*)...

Official title...

Date..191...........

C. ACTION OF BLANK COLLEGE ON THE FOREGOING APPLICATION AND CERTIFICATE

(*To be filled out by Blank College*)

M. ....

(*Name of student*)

is hereby admitted as a candidate for the degree of ....or as a .... student with the following

Credits..............................*units*	Deficiencies....................*units*	Requirements....................*units*
....	....	....
....	....	....
....	....	....
....	....	....
....	....	....
....	....	....

(*Signed*)..

For the Committee on Admissions

Date..191...........

PART V
DE MORTUIS

DE MORTUIS

IRA P. BOOKER

IRA P. BOOKER, who was born November 28, 1832, served Bowdoin College as assistant treasurer from 1892 to 1895, and as treasurer from 1895 until his retirement because of age and disability. The Carnegie Foundation granted Mr. Booker a retiring allowance on June 4, 1895. He died on March 19, 1916.

THOMAS JONATHAN BURRILL

THOMAS JONATHAN BURRILL was born at Pittsfield, Massachusetts, April 25, 1839. He received his bachelor's degree from Illinois State Normal University in 1865, and the degree of doctor of philosophy from the University of Chicago in 1881. In 1876 Northwestern University conferred upon him the honorary degree of master of arts, and in 1893 the degree of doctor of laws. From 1865 to 1868 he was superintendent of public schools in Urbana, Illinois. In 1868 he was appointed assistant professor of natural history at Illinois Industrial University, now the University of Illinois; from 1870 to 1903 he was professor of botany and horticulture, and from 1903 until his retirement in 1912 he was professor of botany. From 1878 to 1884 he was dean of the College of Science, from 1894 to 1901 dean of the general faculty, and from 1894 to 1905 dean of the graduate school. He was also vice-president of the university from 1879 to 1912, and acting president from 1891 to 1894, and in 1904. He was also botanist of the United States Agricultural Experiment Station at Urbana from 1888 until 1912. Dean Burrill was a member of numerous scientific societies and the writer of many articles for educational, botanical, and horticultural reports and magazines.

The Carnegie Foundation granted Professor Burrill a retiring allowance on May 9, 1912. He died at Urbana, Illinois, on April 14, 1916.

LEROY CLARK COOLEY

LEROY CLARK COOLEY was born at Point Peninsula, New York, October 7, 1833. He was graduated in 1855 from the New York State Normal College, and in 1858 from Union College, which also conferred upon him the degree of master of arts in 1861, and that of doctor of philosophy in 1870. Dr. Cooley taught mathematics at Fairfield Academy for one year and physical science at New York State Normal College for fourteen years. In 1874 he became professor of physics and chemistry at Vassar College. From 1894 until his retirement in 1907 he was professor of physics alone.

Professor Cooley was a Fellow of the American Association for the Advancement of Science, a member of various scientific societies, and was president of the New York State Science Teachers' Association in 1899. He was the author of sundry literary and scientific works, including a well-known text-book on physics.

The Carnegie Foundation granted Professor Cooley a retiring allowance on July 9, 1907. He died at Poughkeepsie on September 20, 1916.

WILLIAM SAMUEL CURTIS

William Samuel Curtis was born at Newport, Indiana, June 19, 1850. He attended McKendree College during the year 1869–70, and received his bachelor's degree from Washington University in 1873, and the degree of bachelor of laws from the St. Louis Law School in 1876. In 1905 Washington University conferred upon him the degree of doctor of laws. After ten years as instructor in Smith Academy, a preparatory school of the university, and an equal time devoted to legal practice in Omaha, he became dean of the Law School of Washington University in 1894.

May 14, 1915, the Carnegie Foundation granted Dean Curtis a retiring allowance. He died May 23, 1916, in St. Louis, Missouri.

WILLIAM COLE ESTY

William Cole Esty was born at Westmoreland, New Hampshire, on April 8, 1838. He was graduated in 1860 from Amherst College, from which he also received the degree of doctor of laws in 1888. After a year of advanced study at Harvard, and a year of secondary school teaching, Dr. Esty became instructor in mathematics at Amherst College for three years. He was professor of mathematics there from 1865 until 1905, when he retired as professor emeritus. He was a member of numerous academic organizations.

Professor Esty was granted a retiring allowance by the Carnegie Foundation on June 7, 1906. He died on July 27, 1916.

JOHN CILLEY FALES

John Cilley Fales was born at Thomaston, Maine, December 30, 1836. In 1858 he received his bachelor's degree from Colby College, being valedictorian of his class. In 1903 Hampden-Sidney bestowed upon him the degree of doctor of laws. Soon after graduation he became principal of Lebanon, Kentucky, Seminary, which he conducted until 1869. From 1869 to 1872 he was associate principal of Morse

Academy, New Albany, Indiana. From 1872 until his retirement in 1908 Professor Fales was connected with the Central University of Kentucky, now Centre College, first as professor of natural sciences and then as professor of geology and biology. He was dean of Centre College from 1896 to 1908, and acting president from 1896 to 1898 and in 1903–04. He was a fellow of the Geological Society of America and a member of the Dante Society of America.

Dean Fales was granted a retiring allowance by the Carnegie Foundation May 5, 1908. He died at Danville, Kentucky, February 27, 1916.

MERRITT CALDWELL FERNALD

Merritt Caldwell Fernald was born at South Levant, Maine, on May 26, 1838. He was educated at Bowdoin College, from which he received the degree of master of arts in 1861, that of doctor of philosophy in 1881, and that of doctor of laws in 1902. During the year 1864–65 he pursued scientific studies at Harvard. In 1865–66 he was principal of the Houlton, Maine, Academy, and from 1866 to 1868 principal of the Foxcroft, Maine, Academy. In 1868 he was appointed professor of mathematics and physics in Maine State College, now the University of Maine. From 1868 to 1871 he was acting president. He was president of the institution from 1879 until 1893, when ill health made him prefer the less onerous office of professor of philosophy, which he held until his retirement.

On September 30, 1909, the Carnegie Foundation granted Professor Fernald a retiring allowance. He died at Orono, Maine, January 8, 1916.

JAMES MORGAN HART

James Morgan Hart was born November 2, 1839, at Princeton, New Jersey. He received from Princeton University his bachelor's degree in 1860, a master's degree in 1863, and in 1900 the degree of doctor of literature. In 1863–64 he studied at the University of Göttingen, from which he received the degree of doctor of canon and civil law in 1864. From 1868 to 1872 he was assistant professor of French and German at Cornell University, and from 1876 to 1890 professor of modern languages and English literature at the University of Cincinnati. Returning to Cornell in 1890 he was professor of rhetoric and English philology until 1903, and from 1903 until his retirement in 1907, professor of the English language and literature. During the years from 1872 to 1876 he studied in Germany and produced his work on German Universities, besides translating and editing a number of French and German classics. Professor Hart was also the author of a *Syllabus of Anglo-Saxon Literature*, 1887; a *Handbook of English Composition*, 1895; the *Essentials of Prose Composition*, 1902;

and *Standard English Speech in Outline*, 1907. He was an active member of the Modern Language Association, the American Philosophical Society, and of the Philological Society of London.

Professor Hart was granted a retiring allowance by the Carnegie Foundation on March 28, 1907. He died on April 18, 1916, in Washington, D.C.

GEORGE HUNTINGTON

George Huntington was born at Brooklyn, Connecticut, November 5, 1835. He became a machinist in the Corliss Engine Company's shops at Providence, and built the engine that ran the machinery of the first Chicago exposition. Entering college at an unusual age, he was graduated from Brown University in 1863 with the degree of bachelor of arts. He attended the Andover Theological Seminary during the year 1864–65. In 1879 Beloit College conferred upon him an honorary degree of master of arts, and he received the degree of doctor of letters from Carleton College in 1911. Professor Huntington spent the years from 1863 to 1879 as a clergyman in various pastorates. In 1879 he was appointed professor of rhetoric and logic at Carleton College. From 1900 to 1904 he was professor of rhetoric and biblical literature, and from 1904 to 1906 he was librarian and associate professor of biblical literature.

Professor Huntington was editor of *The Scholar* and of *The Sunday School Teacher* from 1874 to 1876. He was the author of *Outlines of Congregational History*, 1885, and a number of similar volumes, and a frequent contributor to the literary magazines.

On June 7, 1906, Professor Huntington was granted a retiring allowance. He died at Rochester, New York, on January 2, 1916..

JOHN KING

John King was born in Toronto, Ontario, on September 15, 1843. He became a bachelor of arts of the University of Toronto in 1864, a master of arts in 1865, and a member of the university's Senate in 1879. He was appointed King's Counsel in 1890. After active professional practice at Berlin, Ontario, from 1869 to 1893, he was appointed lecturer at Osgoode Hall, Toronto, in 1893, a post which he occupied until his retirement in 1915, lecturing on criminal and statute law, constitutional history, and procedure and practice. Mr. King was the author of standard works on the law of contempt, defamation, slander, and libel, and was the editor for Canadian Cases in standard American publications.

Mr. King was granted a retiring allowance by the Carnegie Foundation on June 8, 1915. He died at Toronto on August 30, 1916.

HENRY ROHR LAWRENCE

Henry Rohr Lawrence, who was born in 1836, served the University of Pennsylvania as assistant treasurer from 1897 until 1909. On March 12, 1909, he was granted a temporary disability allowance, which was made permanent on June 11, 1910. He died on February 11, 1916.

CHARLES BAKER MANDEVILLE

Charles Baker Mandeville was born at Rockford, Illinois, October 31, 1846. In 1877 he graduated from Cornell University with the degree of bachelor of science. Shortly after graduation he turned from the study of law to a connection with the treasurer's office of Cornell University, which continued until his retirement because of ill health in 1906. He was granted a retiring allowance by the Carnegie Foundation June 7, 1906. He died in Ithaca, New York, October 14, 1915.

NATHAN FREDERICK MERRILL

Nathan Frederick Merrill was born at Charlestown, Massachusetts, in 1849. He graduated from the Massachusetts Institute of Technology in 1870, and afterward spent three years in the study of chemistry at Heidelberg, Leipzig, and Zurich, receiving his doctorate from Zurich in 1873. He spent a dozen years as professor of chemistry at the medical school of Boston University, assistant in chemistry at Harvard, professor at Denison University, and in a connection with one of the pioneer smelting concerns of Colorado. In 1885 he became professor of chemistry in the University of Vermont and State Agricultural College, and continued this professorship until his retirement in 1914.

The Carnegie Foundation granted Professor Merrill a retiring allowance on May 15, 1914. He died at Burlington, Vermont, October 26, 1915.

ANSON DANIEL MORSE

Anson Daniel Morse was born at East Cambridge, Vermont, August 13, 1846. He prepared for college at Johnson Academy, Vermont, and at the St. Albans Union School. He received from Amherst College his baccalaureate degree in 1871, a master's degree in 1874, and the degree of doctor of laws in 1908. The degree of doctor of laws was also conferred upon him by Union College in 1895. The year following his graduation from college he spent in European travel, and from 1872 to 1875 he taught in Williston Academy. During 1875–76 and again during 1883 he

studied at the University of Heidelberg. In 1876 he was appointed lecturer in political economy at Amherst. The following year he was made professor of political economy and instructor in history, and in 1878 professor of both history and political economy, continuing in this post until his retirement in 1907. He was a member of the American Academy of Political and Social Science, of the American Historical Association and of the American Antiquarian Society, an elector of the Hall of Fame, and the author of many articles on history and political science.

Professor Morse was granted a retiring allowance by the Carnegie Foundation on March 28, 1907. He died at Amherst, Massachusetts, March 13, 1916.

J. W. NICHOLS

J. W. Nichols was born in Leeds, Yorkshire, England, on July 1, 1847. After completing studies at the South Kensington School of Art in London, he removed to Newfoundland in 1873. From that time until his retirement in 1908 he was devoted to the teaching and advancement of the fine arts in that colony, as teacher in each of the Newfoundland colleges and, beginning with 1886, as principal of the St. John's School of Art. He was honored as a Fellow of the Society of Arts, as an associate of the Royal Drawing Society, and as the representative of Newfoundland at the Third International Art Congress, in London in 1908.

The Carnegie Foundation granted Professor Nichols a retiring allowance on March 30, 1908. He died at St. John's, Newfoundland, on July 20, 1916.

ALEXANDER THOMAS ORMOND

Alexander Thomas Ormond was born at Punxsutawney, Pennsylvania, April 26, 1847. He was a student at Miami University from 1869 to 1870. In 1877 he received his bachelor's degree at Princeton University, and having been awarded the Chancellor Green Mental Science fellowship, received also from that institution the degree of master of arts in 1878, and the degree of doctor of philosophy in 1880. In 1900 Miami University conferred upon him the degree of doctor of laws. From 1880 to 1883 he was professor of philosophy and history at the University of Minnesota. In 1883 he was called to the professorship of mental science and logic at Princeton, where he remained until he retired in 1913, shortly afterward becoming president of Grove City College.

He was a member of the American Philosophical Society and of the American Psychological Association, and the author of *Basal Concepts in Philosophy*, *Foundation of Knowledge*, 1900, *Concepts of Philosophy*, 1906, and numerous papers on philosophical subjects.

The Carnegie Foundation granted Professor Ormond a retiring allowance on October 30, 1913, which he did not live to enjoy, having returned to academic service, in the midst of which he died suddenly, while automobiling near Grove City, on December 18, 1915.

BRADFORD PAUL RAYMOND

Bradford Paul Raymond was born in Stamford, Connecticut, on April 22, 1846. In 1864 he enlisted in the 49th New York Regiment and served in the campaign against Fort Fisher. From 1866 to 1869 he studied in Hamlin University, and was graduated from Lawrence University in 1870. From Boston University he received the degree of bachelor of sacred theology in 1873, and the degree of doctor of philosophy in 1881; he received the degree of doctor of divinity from Northwestern University in 1884, and from Yale University in 1901; he received the degree of doctor of laws from Lawrence University in 1889. Except for a year spent in Germany in the study of theology and philosophy, the years from 1873 until 1883 were spent in pastorates in New England. In 1883 he became president of Lawrence University, resigning that post for the presidency of Wesleyan University in 1889. In 1908 he resigned the presidency and accepted a professorship of the English Bible; failing health made it necessary for him to relinquish active work in 1909. He was the author of *Christianity and the Christ*, and of numerous articles in religious periodicals.

On June 4, 1909, the Carnegie Foundation granted President Raymond a retiring allowance. He died on February 27, 1916, in Middletown, Connecticut.

SOPHIA FOSTER RICHARDSON

Sophia Foster Richardson was born October 9, 1855, at McMinnville, Tennessee. She received her bachelor's degree from Vassar College in 1879, and during several long vacations was a graduate student at Newnham College and at the University of Chicago. From 1879 to 1882 Miss Richardson taught in a private school at Rutherford, New Jersey, and in 1882 became principal of Rutherford Institute, where she remained until 1885, at which time she became instructor in mathematics at Vassar College. In 1914 she received the title of assistant professor and filled this position until her retirement.

On January 21, 1916, the Carnegie Foundation granted Professor Richardson a disability allowance, to become effective on June 1, 1916. She died, however, without enjoying it, on February 2, 1916, at Poughkeepsie, New York.

MARSHALL SOLOMON SNOW

MARSHALL SOLOMON SNOW was born at Hyannis, Massachusetts, August 17, 1842, and was graduated from Phillips Exeter Academy and received his bachelor's degree in 1865, and the degree of master of arts in 1868 from Harvard University. In 1905 Washington University conferred on him the degree of doctor of laws. Dean Snow began teaching in the Worcester, Massachusetts, high school in 1865. In 1866–67 he was principal of the Nashville, Tennessee, high school, and from 1867 to 1870 principal of the Montgomery Bell Academy of Nashville University, and professor, first of mathematics, then of Latin, in the university. In 1870 he was appointed to the chair of *belles-lettres* in Washington University; in 1874 he became professor of history. From 1871 to 1876 he was registrar, and from 1876 until his retirement in 1912 he was dean of the college. From 1887 to 1891, and in 1907–08, he was acting chancellor of the university.

Dean Snow was a member of many historical societies, and at one time president of the Missouri Historical Society. He was the author of *The City Government of St. Louis* and *Higher Education in Missouri*, and a contributor to various magazines.

Dean Snow was granted a retiring allowance by the Carnegie Foundation on May 9, 1912. He died May 28, 1916, at Taunton, Massachusetts.

EDWARD WALL

EDWARD WALL was born at Pictou, Nova Scotia, November 4, 1824. He was graduated from Princeton University in 1848 as valedictorian of his class. Graduated from Princeton Theological Seminary in 1851, he entered the ministry of the Presbyterian Church. During the Civil War he was chaplain of the Third New York Cavalry. In 1870 he became professor of *belles-lettres* in Stevens Institute of Technology, the first teacher of the kind in a technical institution. In addition to his duties as professor in the Institute, he was principal of the Stevens preparatory school from its organization until 1906, when he retired at the age of eighty-two. After his retirement he continued active literary work, publishing his *Reminiscences of Princeton College* and *Life in the Civil War*.

Professor Wall was granted a retiring allowance by the Carnegie Foundation on June 7, 1906. He died December 19, 1915.

RUDOLPH AUGUST WITTHAUS

RUDOLPH AUGUST WITTHAUS was born in New York City on August 30, 1846. He received his bachelor's degree from Columbia University in 1867, and a master's degree in 1870. In 1873–74 he studied at the Sorbonne and the Collège de France, and received the degree of M.D. from New York University in 1875. From 1876 to

1878 Dr. Witthaus was associate professor of chemistry and physiology at New York University. From 1878 to 1900 he was professor of medical chemistry and toxicology in the University of Vermont; during which time he was also professor of chemistry and toxicology in the University of Buffalo from 1882 to 1888, and professor of chemistry, physics, and toxicology in New York University from 1886 to 1898. In 1898 he became professor of chemistry, physics, and toxicology in the Cornell University Medical School, in which position he remained until his retirement in 1911.

Dr. Witthaus was known as a poison expert whose opinion was sought in many important cases. He was a Fellow of the American Association for the Advancement of Science, and a member of the chemical societies of Paris and Berlin. He was the author of *Essentials of Chemistry*, 1879; *General Medical Chemistry*, 1881; a *Manual of Chemistry*, which reached its sixth edition in 1908; and a *Laboratory Guide to Toxicology*, 1886. He edited *Witthaus's and Beeker's Medical Jurisprudence* in four volumes, and wrote numerous articles on poisons.

The Carnegie Foundation granted Dr. Witthaus a retiring allowance on April 20, 1911. He died in New York City, December 19, 1915.

HENRY WOODS

Henry Woods was born in Marion County, Missouri, on July 2, 1838. He received his bachelor's degree from Washington, now Washington and Jefferson, College in 1857. After teaching for two years he entered the Western Theological Seminary at Allegheny, Pennsylvania, where he was graduated in 1862. In 1879 Westminster College, Pennsylvania, conferred upon him the degree of doctor of divinity. From 1862 to 1867, when he became professor of ancient languages in Washington and Jefferson College, he was pastor of the First Presbyterian church of Steubenville, Ohio. From 1871 until his death he was also pastor of the East Buffalo Presbyterian church. From 1880 to 1882 he was clerk of the Synod of Pittsburgh, and from 1887 until his death clerk of the Washington, Pennsylvania, Presbytery.

Professor Woods was granted a retiring allowance by the Carnegie Foundation on July 20, 1906. He died in Washington, Pennsylvania, July 21, 1916.

ARTHUR WILLIAMS WRIGHT

Arthur Williams Wright was born at Lebanon, Connecticut, September 8, 1836. He graduated from Yale University in 1829, and in 1861 received from that institution the first degree of doctor of philosophy given in course in the United States. In 1866 he was admitted to the Bar, but did not practice. In 1868–69 he studied physics and chemistry in Heidelberg and in Berlin. From 1863 to 1868 he was tutor

in Yale College—from 1863 to 1866 in Latin, from 1866 to 1868 in natural philosophy. From 1869 to 1872 he was professor of physics in Williams College. In 1872 he returned to Yale as professor of molecular physics and chemistry, to remain in that chair until his retirement in 1906. Professor Wright planned and took charge of the first Sloane laboratory, was drafted by the United States government for a series of scientific services, made the first successful observations of the polarization of the sun's corona, measured the polarization of the zodiacal light and that from comets and the moon, discovered the presence of gases in meteorites, applied the cathode discharge in vacuo to form metallic films for mirrors, and was the first physicist in this country to obtain results from the Roentgen rays.

Professor Wright was a reviser for the Webster's Dictionary of 1864, for which he also prepared articles on "Orthography" and "Rules for Spelling." He rendered similar services to the edition published twenty-six years later. He published numerous biograph-memoirs and many scientific articles. He was a Fellow of the Royal Astronomical Society of Great Britain and of the American Association for the Advancement of Science, and was a member of many other learned societies.

Professor Wright was granted a retiring allowance by the Carnegie Foundation on June 7, 1906. He died in New Haven, Connecticut, December 19, 1915.

RICHARD HENRY WYNNE

Richard Henry Wynne was born on April 7, 1842. He became assistant professor of mathematics in Bethany College, West Virginia, in 1872, taught the same subject at Columbia College, Kentucky, from 1878 to 1881, and at Norfolk College, Virginia, from 1881 to 1890. Returning to Bethany College in 1891, he was professor of Hebrew and History until his retirement in 1908.

The Carnegie Foundation granted Professor Wynne a retiring allowance on June 4, 1908. He died at Bethany on December 31, 1915.

REPORT OF THE TREASURER

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REPORT OF THE TREASURER

To the Chairman and Trustees of the Carnegie Foundation for the Advancement of Teaching:

In accordance with the provisions of Article IX of the By-laws, the chairman of the board of trustees designated Messrs. Patterson, Teele & Dennis, certified public accountants, to audit the accounts of the Foundation for the last fiscal year. The books of the treasurer were accordingly turned over to this firm, whose report follows.

October 19, 1916.

We have audited the accounts of the Carnegie Foundation for the Advancement of Teaching, including the accounts of the General Endowment and the Division of Educational Enquiry, for the year ending September 30, 1916.

Income from investments has been duly accounted for and expenditures have been duly authorized and vouched.

The securities representing the investments were produced to us and the cash in bank and on hand has been duly verified.

The accompanying Income and Expenditure Account and Balance Sheet are in accordance with the books of the Foundation, and we hereby certify that they exhibit a true and correct statement of the finances at September 30, 1916.

(*Signed*) Patterson, Teele & Dennis,
Accountants and Auditors.

INCOME AND EXPENDITURE

FOR THE YEAR ENDING SEPTEMBER 30, 1916

GENERAL ENDOWMENT

Income

From Securities in the Endowment Fund	$652,208.33	
From other Investments	40,736.67	
Total Income from Investments		$692,945.00
From Carnegie Corporation of New York		100,000.00
Accumulation of Bond Discount—Net		3,210.94
Interest on Bank Balances		4,176.90
		$800,332.84

Expenditure

RETIRING ALLOWANCES:				
To Professors, Officers, and Widows in Institutions on the Associated List			$570,241.23	
To Professors, Officers, and Widows in Institutions not on the Associated List			116,859.21	$687,100.44
ADMINISTRATION:				
Salaries			$26,629.20	
Traveling Expenses of Trustees, etc.			2,650.53	
Rent			4,466.61	
Postage (proportion)			323.17	
Stationery and Office Supplies (proportion)			514.47	
Professional Fees, etc. (Actuarial and others)			2,585.00	
Telephone and Telegraph (proportion)			178.76	
Depreciation of Furniture and Fittings, 10%			687.08	
Rent, Safe Deposit Box			75.00	
Clippings, $196.89. Miscellaneous, $377.29			574.18	38,684.00
PUBLICATION:				
Printing Tenth Annual Report (proportion of cost, $\frac{1}{3}$)	$1,297.29			
Publishing Bulletin Number 9, A Plan of Insurance and Annuities for College Teachers	3,368.93	$4,666.22		
Postage, etc., Mailing Tenth Annual Report and Bulletin Number 9		757.04	$5,423.26	
Printing Minutes (proportion, $\frac{3}{4}$)			197.56	5,620.82
Carried forward				$731,405.26

Amount brought forward	$731,405.26
Binding four volumes of Ninth Bulletin and Tenth Annual Report (proportion)	8.50
Total Expenditure for year ending September 30, 1916	$731,413.76
Increase of Surplus Income for year ending September 30, 1916	68,919.08
	$800,332.84

INCOME AND EXPENDITURE

FOR THE YEAR ENDING SEPTEMBER 30, 1916

DIVISION OF EDUCATIONAL ENQUIRY

Income

From Securities in the Endowment Fund	$50,000.00
Interest on Bank Balances	313.23
	$50,313.23

Expenditure

General:		
Salaries	$4,267.23	
Traveling Expenses	172.20	
Professional Fees	300.00	
Rent	2,400.00	
Stationery and Office Supplies (proportion)	514.46	
Postage (proportion)	323.16	
Telephone and Telegraph (proportion)	178.76	
Depreciation of Furniture and Fittings, 10%	183.89	
Rent, Safe Deposit Box (proportion)	75.00	
Miscellaneous	249.56	$8,664.26
Study of Legal Education:		
Salaries	$4,562.50	
Traveling Expenses	439.60	
Sundries (clerical help, etc.)	139.17	5,141.27
Study of Training of Teachers, Missouri:		
Salaries	$7,988.23	
Clerical Help	5,158.75	
Traveling Expenses	3,280.26	
Honoraria and Fees	2,120.00	
Printing and Stationery	468.09	
Postage	306.03	
Rent of Rooms	545.00	
Miscellaneous Expenses	192.94	20,059.30
Study of Engineering Education:		
Salaries	$7,050.00	
Traveling Expenses	672.45	
Professional Fees	2,685.07	
Printing, Stationery, and Postage	623.76	
Clerical Help	19.75	
Miscellaneous Expenses, Supplies, etc.	191.62	11,242.65
Carried forward		$45,107.48

Amount brought forward			$45,107.48
PUBLICATION:			
Tenth Annual Report (proportion of cost, ⅔)			
Printing	$2,594.58		
Postage, Labor, etc., Mailing	216.47	$2,811.05	
Printing Minutes (proportion, ¼)		65.85	
Binding four volumes of Ninth Bulletin and Tenth Annual Report (proportion)		8.50	2,885.40
Total Expenditure for year to September 30, 1916			$47,992.88
Increase of Surplus Income for year ending September 30, 1916			2,320.35
			$50,313.23

STATEMENT OF SECURITIES AND INCOME THEREON
SEPTEMBER 30, 1916

Schedule A, Exhibit 1

GENERAL ENDOWMENT

Securities	*Date Acquired*	*Par Value*	*Interest due Date*	*Book Value*	INTEREST *Accrued Year ending Sept. 30, 1916*	INTEREST *Accrued Sept. 30, 1916*
U.S. Steel Corporation, Series "A" Registered 50 year 5% Gold Bonds. Due April 1, 1951	May 3, 1911, $1,000,000.00 Dec. 2, 1911, $1,000,000.00	$2,000,000.00	Jan. 1 & July 1	$2,000,000.00	$100,000.00	$25,000.00
U.S. Steel Corporation, Series "B" Registered 50 year 5% Gold Bonds. Due April 1, 1951	Dec. 1, 1905	2,850,000.00	Feb. 1 & Aug. 1	2,850,000.00	142,500.00	23,750.00
U.S. Steel Corporation, Series "D" Registered 50 year 5% Gold Bonds. Due April 1, 1951	Dec. 1, 1905	2,850,000.00	Apr. 1 & Oct. 1	2,850,000.00	142,500.00	71,250.00
U.S. Steel Corporation, Series "E" Registered 50 year 5% Gold Bonds. Due April 1, 1951	May 29, 1912	1,000,000.00	May 1 & Nov. 1	1,000,000.00	50,000.00	20,833.33
U.S. Steel Corporation, Series "F" Registered 50 year 5% Gold Bonds. Due April 1, 1951	Dec. 1, 1905	3,300,000.00	June 1 & Dec. 1	3,300,000.00	165,000.00	55,000.00
Baltimore & Ohio R. R. Co. Southwestern Division, First Mtge. 3½% Gold Coupon Bonds. Due July 1, 1925	June 9, 1905, $20,000.00 Dec. 6, 1906, $30,000.00	50,000.00	Jan. 1 & July 1	47,922.58	1,750.00	437.50
Pennsylvania Co. 4% 15-25 year Gold Coupon Loan 1906. Due April 1, 1931	June 9, 1906	50,000.00	Apr. 1 & Oct. 1	49,488.73	2,000.00	1,000.00
The Lake Shore & Michigan So. Ry. Co. 25 year 4% Gold Coupon Bonds. Due September 1, 1928	June 9, 1906	50,000.00	Mar. 1 & Sept. 1	49,527.38	2,000.00	166.67
Chicago, Burlington & Quincy R.R. Co. Illinois Division, First Mtge. 4% Bonds. Due July 1, 1949	April 1, 1906	50,000.00	Jan. 1 & July 1	50,429.36	2,000.00	500.00
Southern Pacific R. R. Co. First Refunding Mtge. 4% Gold Bonds. Due January 1, 1955	Aug. 1, 1906, $20,000.00 Apr. 29, 1908, $30,000.00 Nov. 22, 1915, $20,000.00	70,000.00	Jan. 1 & July 1	64,418.04	2,686.67	700.00
Oregon Short Line R. R. Co. 4% Refunding Gold Bonds. Due December 1, 1929	Oct. 3, 1906, $60,000.00 Dec. 12, 1907, $35,000.00 June 12, 1914, $5,000.00	100,000.00	June 1 & Dec. 1	94,141.38	4,000.00	1,333.33
Oregon Railroad & Navigation Co. 4% Consolidated Mtge. Gold Bonds. Due June 1, 1946	Dec. 6, 1906, $30,000.00 Apr. 30, 1908, $5,000.00 Apr. 10, 1913, $5,000.00 June 13, 1914, $2,000.00 June 17, 1914, $2,000.00 June 25, 1914, $6,000.00	50,000.00	June 1 & Dec. 1	48,814.17	2,000.00	666.67
The City of New York Registered 3½% Corporate Stock for replenishing the Fund for Street & Park Openings. Due May 1, 1954	April 3, 1907	50,000.00	May 1 & Nov. 1	45,808.70	1,750.00	729.17

Northern Pacific—Great Northern, Chicago, Burlington & Quincy R. R. Co. Collateral Trust 4% Joint Bonds. Due July 1, 1921	July 2, 1907, $70,000.00 Oct. 4, 1909, $30,000.00	100,000.00	Jan. 1 & July 1	97,917.45	4,000.00	1,000.00
Central R. R. Co. of New Jersey General Mtge. 5% Bonds. Due July 1, 1987	Aug. 7, 1907	20,000.00	Jan. 1 & July 1	23,984.64	1,000.00	250.00
Union Pacific R. R. Co. 20 year 4% Convertible Gold Bonds. Due July 1, 1927	Oct. 11, 1907, $35,000.00 Feb. 7, 1908, $58,000.00 June 11, 1908, $7,000.00	100,000.00	Jan. 1 & July 1	92,075.74	4,000.00	1,000.00
Chicago, Indiana & Southern R. R. Co. Consolidated Mtge. 4% 50 year Gold Bonds. Due January 1, 1956	July 10, 1908	55,000.00	Jan. 1 & July 1	50,793.97	2,200.00	550.00
Atchison, Topeka & Santa Fe Ry. Co. Transcontinental Short Line First Mtge. 4% 50 year Gold Bonds. Due July 1, 1958	Sept. 3, 1908, $26,000.00 Apr. 10, 1913, $4,000.00 Sept. 6, 1913, $15,000.00 Sept. 29, 1913, $5,000.00	50,000.00	Jan. 1 & July 1	46,532.28	2,000.00	500.00
Union Pacific R.R. Co. First Lien and Refunding Mtge. 4% Bonds. Due March 1, 2008	Nov. 9, 1908, $36,000.00 Apr. 10, 1913, $14,000.00	50,000.00	Mar. 1 & Sept. 1	47,882.38	2,000.00	166.67
Chesapeake & Ohio Ry. Co. General Funding and Improvement Mtge. 5% Bonds. Due January 1, 1929	March 12, 1909	50,000.00	Jan. 1 & July 1	50,539.98	2,500.00	625.00
Atchison, Topeka & Santa Fe Ry. Co. General Mtge. 4% Bonds. Due October 1, 1995	May 17, 1909, $25,000.00 June 12, 1914, $25,000.00	50,000.00	Apr. 1 & Oct. 1	49,258.19	2,000.00	1,000.00
Chicago, Milwaukee & St. Paul Ry. Co. 25 year 4% Gold Bonds. Due July 1, 1934	Feb. 3, 1910, $75,000.00 June 16, 1914, $25,000.00	100,000.00	Jan. 1 & July 1	94,819.80	4,000.00	1,000.00
Baltimore & Ohio (Pittsburgh, Lake Erie & W. Virginia System) R. R. Co. Refunding 4% Gold Bonds. Due November 1, 1941	April 20, 1910	55,000.00	May 1 & Nov. 1	51,011.44	2,200.00	916.67
Illinois Central R.R. Co. Louisville Division & Terminal First Mortgage 3½% Gold Bonds. Due July 1, 1953	March 11, 1913	200,000.00	Jan. 1 & July 1	172,190.55	7,000.00	1,750.00
Duluth, Missabe & Northern Ry. Co. General Mtge. 5% 25 year Gold Bonds. Due January 1, 1941	Mar. 11, 1913, $59,000.00 June 12, 1914, $25,000.00 June 13, 1914, $5,000.00 June 17, 1914, $10,000.00 Nov. 13, 1915, $15,000.00	114,000.00	Jan. 1 & July 1	119,673.74	5,608.33	1,425.00
H. C. Frick Coke Co. 5% Pittsburgh, Monongahela First Lien Purchase Money Gold Bonds. Due January 1, 1925, to June 1, 1944	March 13, 1913	300,000.00	Jan. 1 & July 1	309,518.95	15,000.00	3,750.00
Chicago, Milwaukee & St. Paul Railway Co. General and Refunding 4½% Gold Bonds. Due January 1, 2014	June 30, 1914	250,000.00	Apr. 1 & Oct. 1	240,837.05	11,250.00	5,625.00
Carolina, Clinchfield & Ohio Railway Co. First 5% Mtge. Bonds. Due June 1, 1938	Nov. 16, 1914	200,000.00	June 1 & Dec. 1	191,715.47	10,000.00	3,333.34
Total		$14,164,000.00		$14,089,301.97	$692,945.00	$224,258.35

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Schedule A, Exhibit 2

Securities	Date Acquired	Par Value	Interest due Date	Book Value	INTEREST Accrued Year ending Sept. 30, 1916	INTEREST Accrued Sept. 30, 1916
Chicago & Northwestern Railway Co. General Mortgage 4% Gold Coupon Bonds. Due November 1, 1987	March 10, 1913	$1,000,000.00	May 1 & Nov. 1	$1,000,000.00	$40,000.00	$16,666.66
Westchester County, New York, Registered Bronx Valley Sanitary Sewer District 4% Bonds. Due January 1, 1933, to January 1, 1974, inclusive	March 10, 1913	250,000.00	Jan. 1 & July 1	250,000.00	10,000.00	2,500.00
Total		$1,250,000.00		$1,250,000.00	$50,000.00	$19,166.66

BALANCE SHEET, SEPTEMBER 30, 1916

GENERAL ENDOWMENT

Assets

INVESTMENTS. *Exhibit 1*		$14,089,301.97
INTEREST ACCRUED ON INVESTMENTS TO SEPTEMBER 30, 1916. *Exhibit 1*		224,258.35
CASH IN BANK AND ON HAND		136,588.14
SUNDRY ACCOUNTS RECEIVABLE		182.70
OFFICE FURNITURE AND FITTINGS	$6,870.83	
Less Reserve for Depreciation	5,729.93	1,140.90
		$14,451,472.06

Funds and Accumulations

ENDOWMENT FUND		$13,000,000.00
ENDOWMENT ACCUMULATIONS		150,000.00
CARNEGIE FOUNDATION, EDUCATIONAL DIVISION		1,377.27
SUNDRY ACCOUNTS PAYABLE		199.46
INCOME AND EXPENDITURE ACCOUNT:		
Accumulations to September 30, 1915	$1,230,976.25	
Add Increase for year ending September 30, 1916. *Schedule B*	68,919.08	1,299,895.33
		$14,451,472.06

THE DIVISION OF EDUCATIONAL ENQUIRY

Assets

INVESTMENTS. *Exhibit 2*		$1,250,000.00
INTEREST ACCRUED ON INVESTMENTS TO SEPTEMBER 30, 1916. *Exhibit 2*		19,166.66
CASH IN BANK AND ON HAND		5,772.75
CARNEGIE FOUNDATION, GENERAL ACCOUNT		1,377.27
SUNDRY ACCOUNTS RECEIVABLE		95.51
OFFICE FURNITURE AND FITTINGS	$1,838.92	
Less Reserve for Depreciation	470.27	1,368.65
		$1,277,780.84

Funds and Accumulations

ENDOWMENT FUND		$1,250,000.00
INCOME AND EXPENDITURE ACCOUNT:		
Accumulations to September 30, 1915	$25,460.49	
Add Increase for year ending September 30, 1916. *Schedule B*	2,320.35	27,780.84
		$1,277,780.84

The treasurer has submitted from time to time to the executive committee statements of receipts and expenditures, which were printed and sent to all trustees. These statements, together with the report of the auditing firm just quoted, give a complete account of the financial operations of the Foundation for the period covered by this report.

ROBERT A. FRANKS, *Treasurer*

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THE CARNEGIE FOUNDATION
FOR THE ADVANCEMENT OF TEACHING

TWELFTH ANNUAL REPORT
OF THE
PRESIDENT AND OF THE TREASURER

576 FIFTH AVENUE
NEW YORK CITY
1917

D. B. UPDIKE · THE MERRYMOUNT PRESS · BOSTON

OFFICERS OF ADMINISTRATION AND TRUSTEES

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REPORT OF THE PRESIDENT

PART I

THE BUSINESS OF THE YEAR

REPORT OF THE PRESIDENT

To the Chairman and Trustees of the Carnegie Foundation for the Advancement of Teaching:

In accordance with the by-laws, I present herewith the Twelfth Annual Report of the President of the Foundation, for the nine months ending June 30, 1917. The eleventh annual meeting of the trustees, on November 15, 1916, changed the fiscal year by an amendment to the by-laws, making the year beginning October 1, 1916, end on June 30, 1917, in order that the fiscal year may begin hereafter on July 1 and end on June 30.

In addition to the usual current business of the Foundation, the year has been devoted largely to correspondence and conferences concerning the Plan of Insurance and Annuities described in the Ninth Bulletin, which received from associated institutions the formal opinions which were printed, together with other discussion, in the Eleventh Annual Report, and which is further discussed in the present pages.

The general study of pensions has continued without abatement, and further reports upon teachers pensions have been prepared at the request of the committee on pensions of the National Education Association, and of various state and local organizations. Pension legislation is now seldom formulated without reference to such assistance as the studies of the Foundation may be able to give.

For the Division of Educational Enquiry the report includes a statement of the publication of a study of Federal Aid for Vocational Education as Bulletin Number Ten, the approaching publication of the study of engineering education, and of progress in the larger studies of legal education and of the training of teachers in Missouri, both of which are also approaching completion.

ENDOWMENT, INCOME, AND EXPENDITURE

The trustees held in trust on June 30 the following securities, given at their face value:

(*a*) General Endowment	
United States Steel Corporation 50 year 5 per cent Gold Bonds	$12,000,000.00
Other Securities	2,164,000.00
Total	$14,164,000.00
(*b*) Division of Educational Enquiry	1,250,000.00
Total	$15,414,000.00

During the nine months the trustees received for general purposes a total income of $625,862.66, of which $525,862.66 came from the general endowment and $100,000

from the Carnegie Corporation of New York, being the interest on two millions of the endowment of the Foundation not yet paid in; and an income of $37,727.27 from the endowment of the Division of Educational Enquiry. The expenditures have been as follows:

(a) General Endowment		
Retiring Allowances and Pensions in Institutions on the Associated List		
Officers and Teachers	$345,213.79	
Widows	116,890.87	$462,104.66
Retiring Allowances and Pensions granted to Individuals		
Officers and Teachers	$62,054.05	
Widows	23,199.34	85,253.39
Expenses of Administration		33,772.53
Publication		6,390.70
Commission on Insurance and Annuities		2,461.49
Total		$589,982.77
(b) Division of Educational Enquiry		
General		$6,517.28
Study of Legal Education		3,366.15
Study of the Training of Teachers		20,747.37
Study of Engineering Education		6,053.99
Publication		3,565.22
Total		$40,250.01

The surplus of the general endowment was increased during the nine months by $35,879.89 to $1,335,775.22; that of the Division of Educational Enquiry was decreased by $2,522.74 to $25,258.10.

MEETINGS OF THE TRUSTEES

Two meetings of the trustees were held during the nine months,—the eleventh annual meeting on November 15, 1916, and a special meeting on May 18, 1917, President Slocum of Colorado College, the chairman of the board, presiding at both.

At the eleventh annual meeting on November 15, 1916, twenty-three of the twenty-four trustees were present.

In the election of officers President Slocum of Colorado College was chosen chairman, President Hadley of Yale, vice-chairman, and President Thwing of Western Reserve University, secretary, each to succeed himself. Mr. Franks and Mr. Vanderlip were elected to succeed themselves on the executive committee for a term of three years. Dr. David Starr Jordan, having retired from the chancellorship of Leland Stanford

Junior University, tendered his resignation as a trustee of the Foundation, which was accepted.

The fiscal year of the Foundation was changed as mentioned above.

The President presented for discussion a statement of the Fundamental Principles of a Pension System and, on the recommendation of the executive committee, representatives of the American Association of University Professors, of the Association of American Universities, and of the National Association of State Universities were invited to share in the discussion. In accordance with this recommendation, Dean Stone and Professor Seligman of Columbia University, President Jessup of the State University of Iowa, and Chancellor Strong of the University of Kansas presented statements to the board. A request of the American Association of University Professors for representation on the board of trustees of the Carnegie Foundation was referred to the executive committee for consideration and report.

It was resolved that, for the information of the trustees, the proposed new plan of insurance and annuities be referred for study and report to a special commission, consisting of six trustees of the Foundation, two representatives of the American Association of University Professors, and one representative each from the Association of American Universities, the National Association of State Universities, and the Association of American Colleges. The executive committee was empowered to provide expenses and expert assistance for the commission and to call a special meeting of the trustees for the consideration of the commission's report.

The commission was constituted of the following members: President Slocum of Colorado College, President Pritchett of the Carnegie Foundation, President Crawford of Allegheny College, Chancellor McCormick of the University of Pittsburgh, Sir William Peterson, Principal of McGill University, and President Van Hise of the University of Wisconsin, for the Carnegie Foundation; Professor Cook of Yale University and Professor Rietz of the University of Illinois, representing the American Association of University Professors; President Goodnow of Johns Hopkins University, representing the Association of American Universities; President Duniway of the University of Wyoming, representing the National Association of State Universities; and President Cowling of Carleton College, representing the Association of American Colleges. The Commission held meetings in New York in December, in Chicago in February, and in New York in April, there being in all eleven sessions. President Slocum acted as chairman, the Secretary of the Foundation as secretary, and Mr. Samuel S. Hall, Associate Actuary of the Mutual Life Insurance Company, provided actuarial information. On April 27, 1917, the Commission unanimously agreed upon a comprehensive plan of insurance and annuities and recommended it to the Trustees of the Carnegie Foundation. The report of the commission is printed in full as an appendix to Part II of this report.

A special meeting of the trustees was held on May 18, 1917, seventeen members of the board being present, the remainder explaining their inability to be present and

expressing their opinion by letter concerning the matters under discussion. The proceedings of this important meeting are given in full in a later section of this report.

THE EXECUTIVE COMMITTEE

The executive committee met five times during the nine months. Full records of these meetings with detailed reports of the current finances were forwarded to the trustees after each meeting. The retiring allowances and pensions voted by the committee during the year are given in full on later pages of this report.

Besides presenting the matters of business discussed in the meetings of the trustees, and reporting upon the progress of the studies of the Division of Educational Enquiry, the committee authorized a reprint of Bulletin Number Four, concerning Medical Education in the United States, the first edition of which had been exhausted, and appointed Dr. William C. Bagley, director of the School of Education of the University of Illinois, to make, during the year 1917–18, a study of curricula for the training of teachers.

In response to enquiries concerning the Rules for Granting Allowances the committee saw no reason for accepting for eligibility a smaller annual income for a municipal university than for a state university; ruled that the employment of a retired professor in a salaried position by his own institution is not consistent with the relations of the Foundation to the associated colleges; and concerning retirement after service both as instructor and professor ruled to use in computation whichever service would give the larger allowance.

In response to enquiries as to whether professors or officers who might enlist in the service of the United States in the event of war could expect that their pension rights would be safeguarded, the following resolution was adopted:

> That professors, associate professors, instructors, or other officers of accepted institutions eligible to benefits of the Carnegie Foundation, who may enlist in the land or naval forces of the state or nation, or who engage in industrial or other enterprises or activities recognized by the Foundation as contributory to the success or efficiency of such forces, shall have their pension privileges kept alive during the continuance of the present war.

The committee expressed regret that the Foundation was unable to undertake various educational studies which it was asked to make; namely, the request of the trustees of the State University of Kentucky for a study of the educational status of that institution; the request of the Federation of State Medical Boards of the United States for a study of the various institutions for drugless treating; and the request of the National Collegiate Athletic Association for a study of athletic interests in the colleges and universities of the United States.

ALLOWANCES GRANTED DURING THE YEAR

1. IN INSTITUTIONS ON THE ASSOCIATED LIST

ON BASIS OF AGE

Institution	*Name*	*Academic Title*	*Date Effective*
Beloit College	Edward Dwight Eaton	President	*July* 1, 1917
Clarkson College of Technology	William Mason Towle	Professor of Industrial Engineering	*July* 1, 1917
Columbia University	Frederick Hirth	Professor of Chinese	*July* 1, 1917
	Julius Sachs	Professor of Secondary Education	*July* 1, 1917
Cornell University	Rolla Clinton Carpenter	Professor of Experimental Engineering	*June* 27, 1917
	George Sylvanus Moler	Professor of Physics	*June* 27, 1917
Dartmouth College	James Fairbanks Colby	Professor of Law and Political Science	*July* 1, 1916
Drury College	Joseph Henry George	President Emeritus and Professor of Philosophy and Religious Education	*Jan.* 1, 1918
Hamilton College	M. Woolsey Stryker	President	*July* 1, 1917
Harvard University	Joseph Doddridge Brannan	Professor of Law	*Sept.* 1, 1916
	Kuno Francke	Professor of the History of German Culture	*Sept.* 28, 1920
Leland Stanford Junior University	James Owen Griffin	Professor of German	*Aug.* 1, 1917
	John Maxson Stillman	Vice-President and Professor of Chemistry	*Aug.* 1, 1917
Massachusetts Institute of Technology	Obadiah Firth Wells	Assistant Registrar	*Nov.* 6, 1920
	Charles Robert Cross	Professor of Physics	*July* 1, 1917
University of Michigan	Thomas Alford Bogle	Professor of Law	*Oct.* 1, 1917
	Charles Beylard Guérard de Nancrède	Professor of Clinical Surgery	*Oct.* 1, 1917
University of Minnesota	John Corrin Hutchinson	Professor of Greek	*Aug.* 1, 1917
University of Missouri	John Davison Lawson	Professor of Contracts and International Law	*Apr.* 1, 1917
New York University	Daniel Webster Hering	Professor of Physics, and Dean of the Graduate School	*Sept.* 1, 1916
Oberlin College	Albert Temple Swing	Professor of Church History	*Sept.* 1, 1916
Polytechnic Institute of Brooklyn	Gustave A. Carteaux	Professor of French	*Sept.* 23, 1917
Purdue University	Thomas Greene Alford	Professor of Mathematics	*Sept.* 1, 1917
University of Rochester	Elizabeth Harriet Denio	Professor of History of Art	*July* 1, 1917
Tulane University	Robert Sharp	President	*Oct.* 1, 1917
Union College	Frank Sargent Hoffman	Professor of Philosophy	*July* 1, 1917
	Olin Henry Landreth	Professor of Civil Engineering	*Aug.* 1, 1917
Washington University	William W. Keysor	Professor of Law	*July* 1, 1917
	Clarence Abiathar Waldo	Professor of Mathematics and Applied Mechanics	*July* 1, 1917
Washington and Jefferson College	William Craig McClelland	Professor of English	*July* 1, 1917
Williams College	Samuel Fessenden Clarke	Professor of Natural History	*July* 1, 1916
University of Wisconsin	Charles Forster Smith	Professor of Greek and Classical Philology	*Aug.* 1, 1917
Yale University	George Burton Adams	Professor of History	*July* 1, 1917
	Edward Salisbury Dana	Professor of Physics	*July* 1, 1917

ON BASIS OF DISABILITY

University of California	Edward Bull Clapp	Professor of Greek	*July* 1, 1917
Colorado College	Ruth Loomis	Dean of Women	*Apr.* 16, 1917
Columbia University	James Furman Kemp	Professor of Geology	*July* 1, 1917
Purdue University	Jacob Westlund	Professor of Mathematics	*June* 1, 1917

WIDOWS' PENSIONS

Institution	*Name*	*Husband's Title*	*Date Effective*
Amherst College	Abbie Miner Nickerson Elwell	Professor of Greek	*Dec.* 28, 1916
University of California	Lois Caswell Howison	Professor of Philosophy	*Jan.* 31, 1917
Columbia University	Juliet Durand Sherman	Professor of Graphics	*Sept.* 20, 1916
Dickinson College	Kathleen Moore Gooding	Professor of Philosophy and Education	*Sept.* 5, 1916
Harvard University	Selma Münsterberg	Professor of Psychology	*Dec.* 17, 1916
	Frances Greene Parker	Professor of Greek and Latin	*Dec.* 3, 1916
	Katherine Royce	Professor of Psychology	*Sept.* 15, 1916
Hobart College	Clara Van Auken	Treasurer	*Feb.* 3, 1917
University of Michigan	Adelle M. Knowlton	Professor of Law	*Dec.* 13, 1916
Oberlin College	Rosa Severance	Treasurer	*Sept.* 1, 1916
University of Pittsburgh	Addie D. Frost	Registrar	*May* 12, 1917
Princeton University	Mary Hall Cornwall	Professor of Chemistry and Mineralogy	*May* 2, 1917
Purdue University	Mary Elizabeth Test	Professor of Mathematics	*May* 22, 1917
University of Toronto	Alice Brodie	Professor of Physiology	*Aug.* 21, 1916
	Helene Fraser	Professor of Italian and Spanish	*Dec.* 29, 1916
	Isabel Grace Mackenzie King	Lecturer in Law	*Sept.* 30, 1916
Vassar College	M. Rossabella M. Cooley	Professor of Physics	*Oct.* 21, 1916
	Kate Huntington Taylor	President	*Jan.* 19, 1916
Washington University	Ellen Frances Jewell Snow	Professor of History and Dean	*June* 29, 1916
Washington and Jefferson College	Elizabeth Dalzell Moffat	President	*Dec.* 5, 1917
Wesleyan University	Julia Joel Conn	Professor of Biology	*Apr.* 19, 1917
Williams College	Alice Louise Baker Russell	Professor of Philosophy	*Feb.* 26, 1917
Yale University	Elizabeth Febiger Beebe	Professor of Mathematics	*July* 1, 1917

2. IN INSTITUTIONS NOT ON THE ASSOCIATED LIST

RETIRING ALLOWANCES

Institution	*Name*	*Academic Title*	*Date Effective*
Rutgers College	Francis Cuyler Van Dyke	Professor of Physics and Dean	*July* 1, 1917
State of North Dakota	Edwin Boone Craighead	Commissioner of Education	*June* 1, 1917

WIDOWS' PENSIONS

Institution	*Name*	*Husband's Title*	*Date Effective*
Cornell College	Mary Ellen Moody Boyd	Professor of Latin and Greek	*Apr.* 7, 1917
Kentucky State University	Callie Warren Kastle	Director, Agricultural Experiment Station	*July* 1, 1917
School of Art, St. John's, Newfoundland	Ida B. Nichols	Principal	*Aug.* 20, 1916

FINANCIAL DATA CONCERNING ALLOWANCES BECOMING OPERATIVE DURING THE FISCAL YEAR

OCTOBER 1, 1916, TO JUNE 30, 1917

PARTICIPANTS	*Number of Allowances*	*Average Age at Date of Retirement*	*Average Length of Service*	*Number of Deaths during the Year*	*Average Amount of Allowance*	TOTAL BECOMING OPERATIVE DURING THE YEAR
PROFESSORS AND OFFICERS IN INSTITUTIONS ON THE ASSOCIATED LIST	10	63.5	35.2	9	$1,721.00	$17,210.00
PROFESSORS AND OFFICERS IN INSTITUTIONS NOT ON THE ASSOCIATED LIST	2	55.5	26	4	1,910.00	3,820.00
WIDOWS OF PROFESSORS AND OFFICERS IN INSTITUTIONS ON THE ASSOCIATED LIST	21			3	1,097.85	23,055.00
WIDOWS OF PROFESSORS AND OFFICERS IN INSTITUTIONS NOT ON THE ASSOCIATED LIST	1			1	500.00	500.00
TOTAL	34			17	GENERAL AVERAGE OF RETIRING ALLOWANCES $1,311.32	44,585.00

ALLOWANCES NOW IN FORCE

Financial Summary on June 30, 1917

Recipients	Number of Allowances in Force				Average Age at Date of Retirement			Average Length of Service			Average Amount of Allowance			Total Grant in Force June 30, 1917
	On basis of age	*On basis of service*	*On basis of disability*	*Total*	*Retired on basis of age*	*On basis of service*	*On basis of disability*	*Retired on basis of age*	*On basis of service*	*On basis of disability*	*On basis of age*	*On basis of service*	*On basis of disability*	
Professors and Officers in Associated Institutions..	217	44	13	274	67.99	61.45	55.07	33.42	32.52	28.61	$1,941.75	$1,771.59	$1,200.38	$514,915
Professors and Officers not in Associated Institutions	38	19	5	62	69.23	64.05	58.80	30.05	37.62	25.80	1,396.40	1,382.84	1,878.00	89,585
Widows of Professors and Officers in Associated Institutions				112							988.84			110,750
Widows of Professors and Officers not in Associated Institutions........				32							753.43			24,110
Total				480							General Average of Retiring Allowances $1,540.33			739,360

TOTAL NUMBER OF ALLOWANCES OPERATIVE

Year	Institutions	Age	Service	Permanent Disability	Temporary Grants	Widows	Total	Deduct: For Deaths	Deduct: For Discontinuances	Net Increase		Allowances & Pensions in Force at End of Year
1906[1]	Associated Institutions	29	13	2	2	6	52			52		
	Non-Associated Institutions	8	4		3		15	1		14	66	66
1906-7	Associated Institutions	35	16	2	3	7	63	10	3	50		
	Non-Associated Institutions	20	12	1	2	4	39	7	1	31	81	147
1907-8	Associated Institutions	19	17	1	3	12	52	10	1	41		
	Non-Associated Institutions	8	9		1	6	24	2	1	21	62	209
1908-9	Associated Institutions	34	17	1	9	10	71	6	4	61		
	Non-Associated Institutions	13	9	3	4	2	31	3	2	26	87	296
1909-10	Associated Institutions	28	7	3	6	14	58	11	10	37		
	Non-Associated Institutions	11	3	1	2	5	22	8	5	9	46	342
1910-11	Associated Institutions	26	2	5	4	7	44	15	6	23		
	Non-Associated Institutions	3	1	3		4	11	4	3	4	27	369
1911-12	Associated Institutions	25		4	3	11	43	9	4	30		
	Non-Associated Institutions	2	1			4	7	9		2[2]	28	397
1912-13	Associated Institutions	25	1	2		7	35	15	2	18		
	Non-Associated Institutions	1				2	3	12		9[2]	9	406
1913-14	Associated Institutions	22		2		12	36	12		24		
	Non-Associated Institutions	4		1		3	8	4		4	28	434
1914-15	Associated Institutions	19		1		14	34	21		13		
	Non-Associated Institutions	1				3	4	6		2[2]	11	445
1915-16	Associated Institutions	31		2		13	46	27		19		
	Non-Associated Institutions					4	4	4		0	19	464
1916-17[3]	Associated Institutions	8		2		21	31	13		18		
	Non-Associated Institutions			2		1	3	5		2[2]	16	480
	Totals	372	112	38	42	172	736	214	42			480

[1] July 1 to September 30. [2] Decrease. [3] October 1 to June 30.

GEOGRAPHICAL DISTRIBUTION OF ALLOWANCES OPERATIVE

State, Territory, or Province	Number of Allowances granted			Deaths	Number of Allowances in Force
	In Institutions on the Associated List	*In Institutions not on the Associated List*	*Total*		
	NORTH ATLANTIC DIVISION				
Maine	11	3	14	5	9
New Hampshire	10	1	11	3	8
Vermont	6		6	3	3
Massachusetts	98	4	102	27	75
Rhode Island		2	2	1	1
Connecticut	39		39	12	27
New York	94	8	102	32	70
New Jersey	23		23	10	13
Pennsylvania	37	8	45	14	31
Total	318	26	344	107	237
	SOUTH ATLANTIC DIVISION				
Maryland	9	1	10	1	9
District of Columbia		8	8	3	5
Virginia	13	9	22	11	11
West Virginia		7	7	2	5
North Carolina		8	8	4	4
South Carolina		7	7	4	3
Georgia		4	4	2	2
Florida		3	3		3
Total	22	47	69	27	42
	SOUTH CENTRAL DIVISION				
Kentucky	6	3	9	4	5
Tennessee		8	8	5	3
Alabama		6	6	3	3
Mississippi		3	3		3
Louisiana	12		12	3	9
Total	18	20	38	15	23
	NORTH CENTRAL DIVISION				
Ohio	23	14	37	10	27
Indiana	17	5	22	3	19
Illinois	2	6	8	4	4
Michigan	12	3	15	4	11
Wisconsin	20		20	6	14
Minnesota	22		22	5	17
Iowa	10	9	19	4	15
Missouri	20	2	22	8	14
North Dakota		4	4	2	2
Nebraska		1	1		1
Kansas		4	4	1	3
Total	126	48	174	47	127
	WESTERN DIVISION				
Montana		2	2	1	1
Colorado	3	3	6	1	5
California	24	1	25	8	17
Oregon		5	5	2	3
Total	27	11	38	12	26
	THE DOMINION OF CANADA				
Ontario	10	2	12	1	11
Quebec	10		10	3	7
Nova Scotia	3		3		3
New Brunswick		3	3	1	2
Prince Edward Island		1	1		1
Total	23	6	29	5	24
	NEWFOUNDLAND				
		3	3	2	1
Total		3	3	2	1
Grand Total	534	161	695	215	480

TOTAL EXPENDITURE IN ALLOWANCES

Year	Institutions	Number of Institutions	Number of Retired Teachers on Roll	Average Age at Retirement on Basis of Age	Amount of Retiring Allowances Paid	Number of Widows' Pensions	Amount of Widows' Pensions Paid	Total Load of Allowances and Pensions	Total Amount Paid
1906[1]	Associated	52	44	71.45	$15,478.53	6	$1,124.97	$77,785	$16,603.50
	Non-Associated	32	12	71.37	6,474.53		124.98	19,100	6,599.51
1906–7	Associated	55	90	71.61	77,574.09	12	8,039.06	152,205	85,613.15
	Non-Associated	48	37	73.45	47,654.11	4	2,420.00	55,700	50,074.11
1907–8	Associated	62	116	71.44	146,140.47	23	14,989.48	215,330	161,129.95
	Non-Associated	59	52	72.39	80,134.26	10	5,378.20	79,515	85,512.46
1908–9	Associated	67	162	69.7	206,472.57	33	24,545.00	320,715	231,017.57
	Non-Associated	62	54	69.8	104,536.66	12	8,316.67	112,770	112,853.33
1909–10	Associated	71	189	69.6	291,403.98	47	33,795.04	385,315	325,199.02
	Non-Associated	77	81	70.6	132,497.51	17	12,137.77	125,970	144,635.28
1910–11	Associated	72	208	69.5	341,899.16	53	46,720.17	420,790	388,619.33
	Non-Associated	77	84	70.1	122,215.10	21	16,044.57	128,145	138,259.67
1911–12	Associated	72	220	69.3	388,338.27	62	53,646.37	473,680	441,984.64
	Non-Associated	68	80	69.7	108,329.55	23	20,045.84	127,800	128,438.39
1912–13	Associated	73	245	69	416,626.37	67	62,360.77	507,420	478,987.14
	Non-Associated	63	71	69.2	102,814.10	23	18,588.77	115,640	121,402.87
1913–14	Associated	73	259	68.7	444,966.52	77	69,523.06	550,420	514,489.58
	Non-Associated	66	72	69.1	99,984.68	26	20,389.51	122,595	120,374.19
1914–15	Associated	73	259	66.9	473,969.38	90	80,152.31	563,335	554,121.69
	Non-Associated	65	68	68	99,850.81	28	20,752.47	117,830	120,603.28
1915–16	Associated	74	272	66.3	479,923.91	94	90,317.32	606,535	570,241.23
	Non-Associated	66	64	71	83,839.91	32	33,019.30	114,695	116,859.21
1916–17[2]	Associated	71	274	67.99	345,213.79	112	116,890.87	469,249[2]	462,104.66
	Non-Associated	64	62	69.23	62,054.05	32	23,199.34	85,271[2]	85,253.39

[1] July 1 to September 30.   [2] October 1 to June 30.

TOTAL LOAD OF ALLOWANCES ASSUMED

Year	Institution	*Age*	*Service*	*Permanent Disability*	*Temporary Grants*	*Widows*	*Total*	Deduct *For Deaths*	Deduct *For Discontinuances*	*Net Increase*		*Annual Load at End of Fiscal Year*
1906[1]	Associated	$40,630	$26,405	$2,465	$2,750	$5,535	$77,785			$77,785		
	Non-Associated	8,200	8,220		4,015		20,435	$1,335		19,100	$96,885	$96,885
1906-7	Associated	52,960	28,455	3,000	3,870	6,165	94,450	16,160	$3,870	$74,420		
	Non-Associated	24,240	14,955	1,100	2,400	2,670	45,365	7,750	1,015	36,600	111,020	207,905
1907-8	Associated	33,280	27,610	1,800	5,000	10,480	78,170	13,375	1,670	$63,125		
	Non-Associated	9,530	12,830		1,500	3,905	27,765	3,350	600	23,815	86,940	294,845
1908-9	Associated	62,930	33,280	1,525	14,340	9,145	121,220	9,755	6,080	$105,385		
	Non-Associated	14,865	14,995	5,065	5,100	1,695	41,720	5,465	3,000	33,255	138,640	433,485
1909-10	Associated	59,950	10,795	4,515	10,080	14,870	100,210	18,270	17,340	$64,600		
	Non-Associated	16,860	4,610	1,500	3,300	5,060	31,330	11,230	6,900	13,200	77,800	511,285
1910-11	Associated	50,096	3,435	6,580	4,800	6,595	71,505	26,950	9,080	$35,475		
	Non-Associated	4,070	1,615	5,070		2,955	13,710	6,735	4,800	2,175	37,650	548,935
1911-12	Associated	51,145		5,455	3,800	11,035	71,435	13,745	4,800	$52,890		
	Non-Associated	5,600	1,200			3,600	10,400	10,745		345[2]	52,545	601,480
1912-13	Associated	51,435	2,655	2,325		5,725	62,140	26,600	1,800	$33,740		
	Non-Associated	1,000				2,000	3,000	15,160		12,160[2]	21,580	623,060
1913-14	Associated	46,510		2,860		13,265	62,635	19,635		$43,000		
	Non-Associated	7,810		1,820		1,650	11,280	4,325		6,955	49,955	673,015
1914-15	Associated	41,350		775		13,050	55,175	42,260		$12,915		
	Non-Associated	2,300				1,865	4,165	8,930		4,765[2]	8,150	681,165
1915-16	Associated	70,400		2,225		12,445	85,070	41,870		$43,200		
	Non-Associated					2,985	2,985	6,120		3,135[2]	40,065	721,230
1916-17[3]	Associated	14,900		2,310		23,055	40,265	21,135		$19,130		
	Non-Associated			3,820		500	4,320	5,320		1,000[2]	18,130	739,360

[1] July 1 to September 30. [2] Decrease. [3] October 1 to June 30.

15

PUBLICATIONS OF THE FOUNDATION

THE following publications were issued during the year:

The Eleventh Annual Report of the President and of the Treasurer, *172 pages.* 1916.

Including discussions of the Comprehensive Plan of Insurance and Annuities for College Teachers, with the official action thereon of the associated institutions; discussions of public school, municipal service, industrial, and clergy pension funds; reports of the progress of the Foundation's studies of agricultural education, engineering education, legal education, and the training of teachers; together with suggestions for uniform college entrance certificates.

Bulletin Number Ten. Federal Aid for Vocational Education, *127 pages.* 1917.

A study for the Foundation, by I. L. Kandel, of the legislative history of federal aid for vocational education, its constitutional and educational precedents, and its educational consequences; with an introduction by the President of the Foundation.

PART II

INSURANCE AND ANNUITIES

A NOTABLE YEAR

The past year has been a notable one in the history of the Carnegie Foundation. It has marked the culmination of some twelve years of study and investigation.

When the Carnegie Foundation was established, the Founder and those associated with him had no thought of any other form of pension system than that of a teacher's pension paid entirely from an endowment provided for that purpose, and without the participation of the teacher. The concern of the trustees and of the Founder was so to introduce such a pension to the colleges and teachers of the United States, Canada, and Newfoundland that it might not seem a gratuity,—that it might come as a right, not as a favor. For this reason great care was taken to pay the pensions thru the colleges themselves, to make them, as far as possible, payments of the college, and to found them upon definitely established rules under which teachers might accept pensions without loss of self-respect or independence.

It is generally agreed that this end was attained, and that the teacher in the colleges associated with the Carnegie Foundation has not been made to feel dependent or that he was an applicant for bounty. In taking this action, however, the trustees reserved fully the right to make such changes as the future should show to be in the interest of the great body of teachers.

The experience of twelve years and the examination of the pension problem in all countries has led the trustees to no different conclusion as to the need for making any pension a matter of right, not a matter of favor. The exhaustive study made in these intervening years has shown clearly that no system of free pensions can be devised which will not in the end affect the teacher's pay. The experience of the world has also now accepted the economic truth that the members of any group in the body politic receive their best service at the hands of society when the machinery is provided by which they may attain therein economic independence, rather than have the risk of dependence lifted from them by free gift. It is also clear that the opportunity to protect themselves against dependence should be open to the great body of teachers, not to a selected minority.

Under the pressure of these conclusions the officers and trustees of the Carnegie Foundation were faced with two duties: first, to carry out fairly and to the best of their ability the obligations assumed in the associated institutions; and, secondly, to establish as quickly as possible a system of benefits open to the great body of teachers in the three English-speaking countries of North America, upon terms which should be permanent, economically sound, and within the reach of the teacher and of his college. These difficult duties the trustees and the executive officers of the Foundation have been seeking conscientiously to carry out. In the nature of the case the determination of what is a reasonable exercise of the power of revision retained by the trustees touches many personal interests. A small number of teachers, but whose voices have been most frequently heard, have insisted that the pensions expected under the

present rules were in the nature of contracts. The great body of teachers, however, have been quite willing to leave the determination of what was reasonable and feasible in the continuation for a long period of the present rules to the sense of justice and responsibility of the trustees of the Foundation.

The second question—namely, what are the sound bases for the protection of the lives of teachers against dependence?—has been technically more difficult to deal with, but the conclusions to which all authorities have come have on the whole been more generally accepted.

The result of the twelve years' work of the Foundation has been epoch-making in this respect. The studies brought together from all sources have demonstrated that the problem of insurance and the problem of the annuity cannot be financially separated. This study has made clear the fact that a contributory system of annuities is the only one which society can permanently support, and under which the teacher shall be sure of his protection. Finally, these studies have made clear that the establishment of a coöperation for the common protection of college teachers in the United States, Canada, and Newfoundland would mean in a generation a security for the profession of the teacher, and a solidarity of feeling which nothing else can bring about.

While the work of these years has been difficult, while questions have necessarily been raised which brought criticism and alarm, the results of this work have nevertheless been the greatest contribution to the profession of the teacher which the Carnegie Foundation could possibly accomplish. Nothing will count so much for the future as to bring about a form of coöperation under which each man who enters the teacher's profession may be able to enter into a contract whereby he and his family shall be protected against dependence, and at a cost within his ability to pay. It is to be regretted that this knowledge was not available when the Foundation began. The one thing which such an agency can do is to proceed sincerely and courageously, once the information is in its hands. This is what the Carnegie Foundation has undertaken to do. It is encouraging to find from the widespread correspondence which comes to the Foundation that the great body of teachers have realized the effort which has been made, have sympathized with the difficulties to be overcome, and have accepted in the best spirit the results to which the studies have led.

The past year of the Foundation—marking as it does the acceptance of the fundamental principles worked out in the ten years past, committing the Foundation definitely to the principles of the contributory pension, to a plan of insurance and annuities which mutually support each other, and to an organization open to the great body of college teachers of the whole continent—is the culmination of twelve years of work, begun with the best intentions and with the highest desires to serve the teaching body, but resting in the end upon conclusions quite different from the assumptions upon which the work started. In this day of world trial the Carnegie Foundation has sought to deal sincerely both with its obligations and its mistakes.

THE COMMISSION ON INSURANCE AND ANNUITIES

A REPORT upon the proposed plan of insurance and annuities was made by a commission appointed by the trustees of the Carnegie Foundation at its meeting on November 15, 1916. This commission was intended to include the various groups more directly interested in the question of insurance and pensions for teachers.

The report of this commission is printed as an appendix to this paper. The character of its work and the conclusions to which it was led will best be understood by an examination of the report itself. The two members of the commission who represented the American Association of University Professors were also members of the pension committee of the American Association of University Professors. Mr. Samuel S. Hall, associate actuary of the Mutual Life Insurance Company, served as actuarial expert for this commission.

The various sessions of the commission held in New York and Chicago between December 27, 1916, and April 27, 1917, involved most frank and detailed discussions of the questions involved in the institution of a satisfactory system of insurance and annuities for college teachers. The conclusions of this commission led to the following important results: 1. The commission unanimously recommended certain fundamental principles as necessary in the organization and administration of any system of pensions. 2. The commission recommended unanimously the advantage of combining insurance with old age annuities for men who, like college teachers, must live upon a fixed salary. 3. The commission recommended as the best means of carrying out these objects the formation of a teachers insurance and annuity association, conducted under the laws of the State of New York, and offering insurance and annuities upon the basis of actual cost. 4. The commission recommended that the operation of this association would be most effectively carried out as a stock company, but suggested that the ownership of such stock should ultimately be vested in the trustees of the association; said trustees to be representative of the policy-holders themselves.

These results are of enormous interest to teachers for two reasons.

In the first place, the studies of this commission dealt with the fundamental principles involved. It is of immediate interest to the individual teacher, whether he is to receive a pension from the Carnegie Foundation, or not; but it is enormously more important to the great body of teachers to decide what are the permanent and sound principles upon which insurance and annuities should be based, and then to set in operation the machinery for such a system. This commission addressed itself squarely to these larger problems. It had the advantage of the literature of the subject digested from all the sources arising out of the experience of other countries.

In the second place, this commission, while having no knowledge as to the extent to which assistance could be obtained in addition to the present funds of the Foundation, expressed the opinion that the extension to all teachers at present in the associated institutions of the privilege of continuing in the present system would com-

pletely meet all their reasonable expectations. The commission at the same time urged the trustees of the Foundation to give all possible consideration to the needs of older teachers in institutions not now associated with the Foundation.

The commission dealt as completely and explicitly with the questions involved as could be done without going into the minute problems of organization and administration. Its report is likely to remain for many years a paper of great value. In no other publication have the essential interests of the college teacher, so far as they are involved in insurance and annuities, been so clearly and so explicitly set forth.

THE FUNDAMENTALS OF INSURANCE AND ANNUITIES

WHILE the report of this commission, read in its entirety, sets forth its conclusions with respect to these fundamental questions, the matters involved are of such importance and their determination will have such far-reaching effect upon the educational and social progress of our country, that it is worth while, even at the risk of repetition, to bring together in concise form those fundamental conclusions to which this commission with its expert advisers was led.

I

The commission set forth, in the first place, in clear terms, the fact that both insurance systems and pension systems were devised to protect the participants against dependence,—insurance to protect the family of the participant against dependence due to his premature death; the old age pension to protect the individual, or the individual and his family, against the dependence due to old age. This protection against dependence is the sole legitimate purpose of either life insurance or pensions.

II

Insurance against risk of premature death for the benefit of dependents is needed during the active, productive period of life, lasting perhaps to the age of sixty-five. A pension, or what is better termed an old age annuity, is needed as a protection against dependence after the active period of life. Insurance during the productive period naturally therefore articulates with an old age annuity, and the two together form the most complete and at the same time the most economical protection against dependence.

III

The obligation to provide a certain measure of protection for those depending upon him is solely an obligation of the individual. An employer, whether a corporation or an individual, cannot concern himself as to the dependents whom an individual employed by him may support. The obligation to secure protection from dependence

in old age likewise rests first upon the individual, but the employer has a direct interest in providing a system under which employees may retire upon an equitable basis when their working capacity diminishes. The payment for insurance is therefore an individual obligation; the payment of the cost of old age annuities is a joint obligation of employer and employee, and the cost should be borne jointly.

IV

Certain actuarial and financial principles must be observed in order that any plan offering insurance and annuities shall be sound. In actuarial terms a pension is simply a deferred annuity upon the life of one or more individuals.

Whether the individual participate in insurance or in a deferred annuity, he can be secure only when the relation is contractual. In order to give a contract, one condition is indispensable—there must be set aside year by year the reserve necessary with its accumulated interest to provide the insurance or the annuity contracted for. On no other condition can the participant in an insurance or an annuity contract be assured that the insurance policy will be paid to his dependents, or that the annuity will be ready for him at the age agreed upon.

An insurance and annuity system conducted upon the actuarial basis of setting aside year by year the necessary reserve is the only form of relief whose cost can be accurately estimated in advance. A teacher beginning payments for insurance and annuity upon his entrance into the teaching profession can protect his family by insurance and himself against old age dependence at a cost well within his ability to pay.

To attain its full purpose participation in an annuity system to the extent of an agreed minimum should form a condition of entering the service or employment whose members are coöperating in an insurance or annuity plan.

V

A definite form of organization called The Teachers Insurance and Annuity Association of America, to be organized under the laws of the State of New York, was recommended by this commission as fulfilling the conditions with respect to security, permanence, and economy under which men upon modest salary may secure the highest returns. The commission expressed its conviction that society does its best for the individual when it provides the machinery by which he may obtain needed protection for himself and his dependents at a cost within his reasonable ability to pay.

THE ACTION OF THE TRUSTEES OF THE FOUNDATION

For more than two years the trustees of the Carnegie Foundation have had before them the problem of the reorganization of their pension system, and the consideration of the conditions necessary for a permanent and adequate protection for college teachers. During these two years the trustees have sought the advice of actuaries, publicists, teachers, and, in particular, have invited the coöperation and discussion of representative bodies assumed to be interested in this problem. The American Association of University Professors, the Association of American Universities, the National Association of State Universities, and the Association of American Colleges were formally invited to discuss these problems, and to express their opinions to the trustees. Correspondence has been had directly with between five and six thousand teachers. So that when the trustees met in a special meeting on May 18, 1917, they had before them not only these various reports, but the digested opinions of college teachers gathered during the two-year interval.

In addition there was placed before the trustees at this meeting the most complete actuarial estimates possible to be made concerning the load which would be entailed in the future in paying under the present rules the pensions of the body of teachers now in the associated colleges. It was in the light of these two years of discussion, and with all of the information here referred to, that the trustees proceeded on the eighteenth of May to decide upon the future form of pension system best suited for the teachers of the United States, Canada, and Newfoundland, as indicated by all of this evidence.

The information as to the load which will devolve in the next half century from the teachers in the associated colleges if the present rules remain unchanged was set forth in the report of the commission just alluded to. The statistical information upon which these estimates rest was presented to the trustees at their meeting in May, both in tabular and in graphic form. This information may be briefly summarized in the following terms.

On April 1, 1917, there were in the associated colleges and universities some 6600 teachers, including professors and instructors. The distribution of these teachers as to age is shown in the following table:

Number of Teachers in Associated Institutions April 1, 1917

Age	Men: Instructors, Unmarried	Men: Instructors, Married	Men: Professors, Unmarried	Men: Professors, Married	Women: Instructors	Women: Professors	Total
20	1						1
21	1				1		2
22	7	1					8
23	26	3	1		1		31
24	54	15	1		6		76
25	72	16	2		7	5	102
26	68	27	4	2	10		111
27	70	53	8	13	16		160
28	82	62	7	13	19	1	184
29	60	84	13	26	23	4	210
30	60	58	18	44	16	5	201
31	41	84	22	57	17	8	229
32	37	78	16	67	20	3	221
33	37	73	27	89	15	6	247
34	33	50	35	114	21	7	260
35	25	53	29	110	21	6	244
36	13	57	34	115	18	7	244
37	16	39	26	137	14	12	244
38	9	26	22	129	14	12	212
39	9	22	25	153	12	13	234
40	7	22	24	131	11	12	207
41	9	20	34	133	11	9	216
42	1	14	18	153	8	19	213
43		10	25	151	3	18	207
44	7	15	24	158	4	12	220
45	2	11	22	123	10	19	187
46		7	20	146	6	18	197
47	3	7	18	116	1	21	166
48	1	4	14	140	6	16	181
49	3	4	9	107	3	11	137
50		5	6	117	1	7	136
51	1	2	13	109	1	19	145
52	1	5	15	88		16	125
53	2	2	15	89	1	17	126
54		1	6	79	3	19	108
55		8	16	75	1	10	110
56		1	4	58	1	7	71
57		3	7	68	1	8	87
58		1	6	68		5	80
59		2	7	52	1	8	70
60		2	8	51		5	66
61		1	3	38		9	51
62		2	5	38		7	52
63				28		2	30
64			3	27		1	31
65			7	33		3	43
66		2	2	33		1	38
67			1	17			18
68				13			13
69			2	4	1	1	8
70		2		8			10
71				4			4
72				6		1	7
73			4	1			5
74				3			3
75				1			1
76				1			1
77				1			1
81			1				1
	758	954	629	3537	325	390	6593

The changes that have taken place in the teaching body of these seventy-three institutions in five years are brought out by a comparison with the same institutions six years before, and are exhibited in the following table:

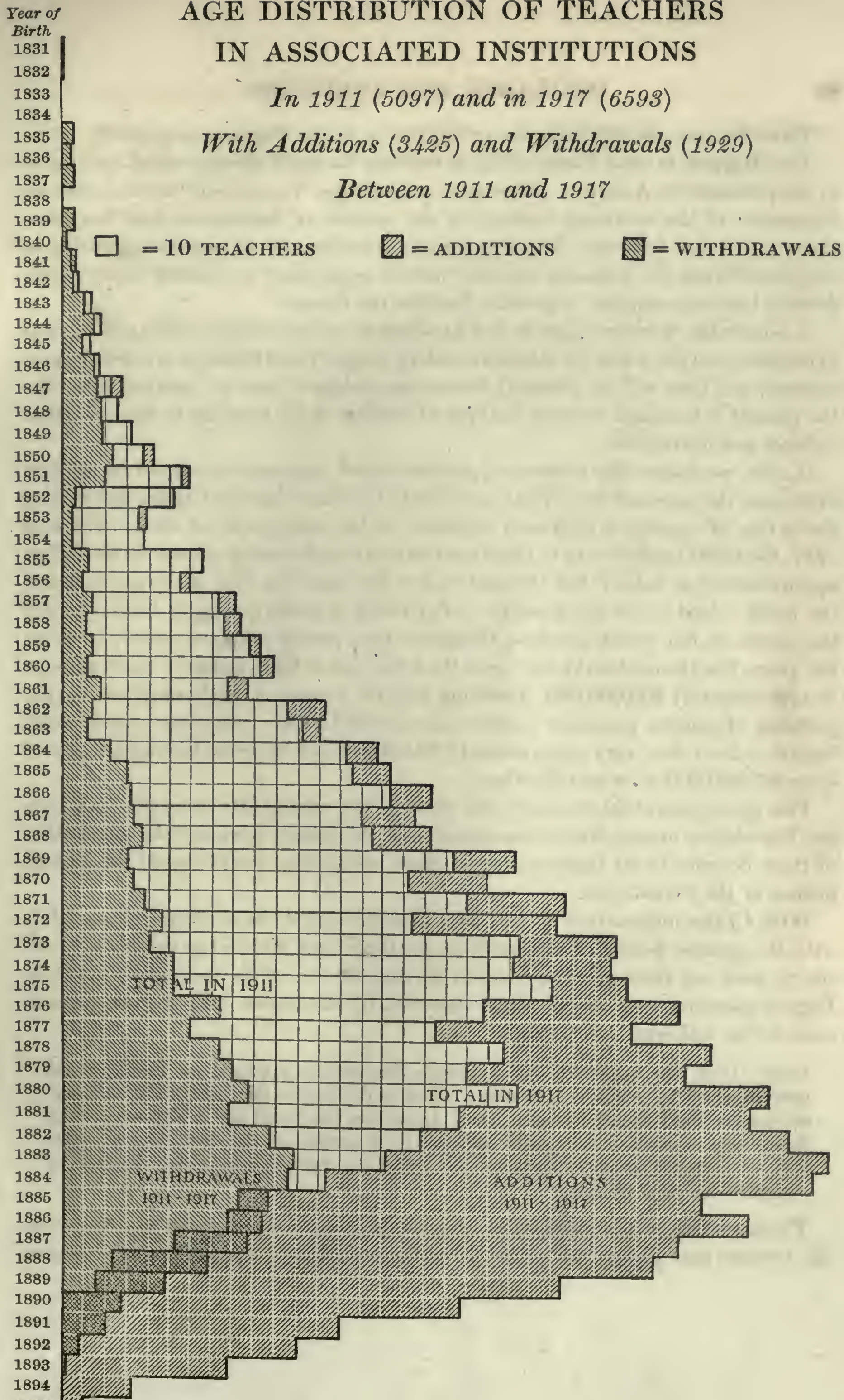
Year of Birth	*In Institutions in 1911*	*Withdrawals between 1911 and 1917*	*Additions between 1911 and 1917*	*In Institutions in 1917*
1831	1	1		
1832	1	1		
1833				
1834				
1835	1	3	2	
1836	2	1		1
1837	1	2	1	
1838				
1839	5	5		
1840		1	2	1
1841	6	5		1
1842	5	6	2	1
1843	14	11		3
1844	18	13		5
1845	14	7		7
1846	16	13	1	4
1847	22	17	5	10
1848	26	18		8
1849	32	19		13
1850	39	23	2	18
1851	56	19	1	38
1852	50	7		43
1853	35	6	2	31
1854	36	6		30
1855	63	11		52
1856	54	9	6	51
1857	72	13	7	66
1858	77	11	4	70
1859	90	13	3	80
1860	94	12	5	87
1861	78	17	10	71
1862	106	15	19	110
1863	112	11	7	108
1864	136	23	13	126
1865	137	28	16	125
1866	154	30	21	145
1867	141	31	26	136
1868	144	35	28	137
1869	184	30	27	181
1870	164	32	34	166
1871	190	38	45	197
1872	167	46	66	187
1873	215	40	45	220
1874	212	51	46	207
1875	227	51	37	213
1876	198	73	91	216
1877	178	59	88	207
1878	209	71	96	234
1879	190	79	101	212
1880	215	88	117	244
1881	186	78	136	244
1882	170	97	171	244
1883	163	109	206	260
1884	124	107	230	247
1885	97	81	205	221
1886	79	95	245	229
1887	52	88	237	201
1888	22	68	256	210
1889	17	48	215	184
1890		27	187	160
1891		20	131	111
1892		8	110	102
1893		1	77	76
1894			31	31
1895			8	8
1896		1	3	2
1897			1	1
Total	5097	1929	3425	6593

AGE DISTRIBUTION OF TEACHERS IN ASSOCIATED INSTITUTIONS

In 1911 (5097) and in 1917 (6593)

With Additions (3425) and Withdrawals (1929)

Between 1911 and 1917



These changes are strikingly shown to the eye in the diagram on page 27.

This diagram is most illuminating, as showing the rapid changes which take place in the personnel of American universities and colleges. The eye will catch at once an impression of the enormous increase in the number of instructors that has come about in the last few years. This comparison furnishes also at least an approximate estimate of what the actuaries call the "rate of separation," as a factor which enters directly into any estimate of possible load for the future.

A third table, between pages 28 and 29, shows the salary budget of this great group of teachers, and gives also the relation of salary to age. These statistics are of enormous interest, and they will be discussed from other points of view at another time. For the present it is enough to show the typical relation of age to salary in the associated colleges and universities.

If, now, we assume the number of professors and instructors as shown in the first table, and the ages and rate of pay as exhibited in the subsequent table, and assume also a rate of separation such as is indicated in the comparison of June, 1911, and 1917, the 6600 teachers now in these institutions would develop a load for the future approximately as follows: For the next twenty-five years the cost of the pensions and the pension load would rise steadily—after which it would gradually decline toward the minimum, but would not cease altogether for a period of approximately seventy-five years. For the next forty-five years the total cost of these pensions would amount to approximately $69,000,000. Assuming that the income of the Foundation for the purposes of pension payments is approximately $750,000 a year, this income would furnish in forty-five years approximately $34,000,000 of this sum, leaving a deficit of some $37,000,000 to be met elsewhere.

This figure shows that for nearly the whole of the coming fifty years the load upon the Foundation arising from a continuation of the present rules and the application of these benefits to all teachers now in these institutions would exceed the present income of the Foundation.

With all this information in their hands the trustees at the meeting in May, 1917, with the greatest feeling of responsibility for their trust, and in the most earnest desire to work out their great problem to the best interest of the teachers of the three English-speaking countries of North America, by unanimous vote of those present, came to the following conclusions:

> *Voted:* That the trustees of the Carnegie Foundation approve the fundamental principles of the teachers' pension system as defined in the report of the Commission on the Plan of Insurance and Annuities, that is to say, a pension system for college teachers which shall include the principle of the contributory pension, of coöperation between the teacher and the college, and of the creation of a reserve for each pension.

This action marks the culmination of many years of discussion. In taking this action the trustees have given their adherence to those fundamental principles of a pension

28

AGE AND SALARY DISTRIBUTION OF TE

Age	Below $1000	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600
81												1						
77																		
76																	1	
75																		
74																	1	
73		1		1														
72										1		1						
71											1						1	
70										1		1		2				
69						1				1		1						
68				1										2				
67											1							1
66			1			1	2					1		2	1	1	3	
65		1	1	3					1			3	1	2		1	4	
64				1			1					1	1				1	1
63					1							2	1	1	1		2	
62	1		1		1			1	1	1		1		1	1	1	2	1
61	1				1	1	2	2	1	1		2	1	1	1	1	4	1
60				4			1	1		2	1	8		1	1	3	3	
59	1	2		2			3	2	2	2		2	1			1	5	
58	1			2	1		2	1	1			2	1	3	1	3	3	
57		3				1		2	3	2	1	2	3	4			4	1
56					2		2		1	1	1	4	1		1	2	3	
55	1	1	1	2				4	4	3	3	4	3	4		3	6	4
54		2	1	2	1	2	2	2	3	7		8	2	5	1	6	4	2
53		4	2	2		1	3	2	1	4	1	11	1	4	2	6	8	
52		2	1	1	1	3	6		2	6	3	7	2	6		3	5	
51		2	1	3		2	5	3	1	3	1	14	9	8	1	4	5	2
50	1	3	1				4	1	1	4	3	15	2	3	3	8	9	
49	2	3			1	4	1	4	3	6	3	10	3	7	3	3	7	1
48	2	6	1	2	3	3	3	3	3	8	7	18	9	7	2	5	8	4
47	1	3	3	4	5	4	5	4	6	3	2	19	2	4	4	1	14	2
46	3	3		4	2	5	4	6	4	9	4	23	3	3	4	7	11	4
45	1	3	1	9	2	4	7	7	4	7	4	19		7	4	12	13	
44	5	3	2	7	3	3	4	4	5	8	6	29	7	9	1	11	14	1
43	3	1	1	6	1	4	11	4	5	7	2	22	6	15	1	6	20	3
42	1	2	2	2	3	6	9	8	6	14	3	26	6	9	4	8	12	2
41	6	4	3	7	6	7	9	7	2	8	2	26	7	13	1	6	14	4
40	3	6	4	10	1	5	14	8	7	16	5	31	7	10	5	3	14	2
39	2	7	2	13	5	6	18	9	11	16	14	29	6	13	4	4	18	3
38	6	7	4	12	4	7	15	10	8	13	8	37	6	9		8	14	2
37	5	10	7	21	5	9	19	10	12	9	14	32	7	10	3	5	20	1
36	6	4	5	22	13	8	39	19	9	20	1	23	2	10	1	6	10	1
35	9	8	10	21	13	10	25	15	14	20	5	25	1	12	2	5	15	2
34	6	12	4	25	17	15	29	23	9	18	9	38	4	8	3	5	12	2
33	13	9	7	35	17	16	28	18	7	15	8	29	3	6	1	3	17	
32	8	18	17	24	18	22	21	15	7	11	7	26		5	1	1	9	1
31	16	22	15	37	10	19	31	21	9	17	2	11	4	2	1	1	5	
30	16	18	13	42	15	23	22	18	3	12		5	1	2	2		4	1
29	28	22	23	32	17	17	26	15	7	7	1	7	1	1			3	
28	19	32	19	40	10	13	28	2	3	4	1	4		1		2	2	
27	20	30	17	35	13	9	12	9	2	5	1	6				1		
26	32	25	17	21	4	6	3	3										
25	33	25	13	18	2	3	7											
24	26	23	7	11	3	1	5											
23	18	4	3	6														
22	4	2		1		1												
21	2																	
20	1																	
	303	333	210	491	201	242	428	263	168	292	125	586	114	212	61	146	330	49

ERS IN THE ASSOCIATED INSTITUTIONS

2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800	3900	4000-4400	4500-4900	5000-5400	5500-5900	6000-7000	Above 7000	*Total*
																		1
		1																1
																		1
													1					1
		1											1					3
		2										1						5
		1			1				1			1		1				7
								1					1					4
		1					1		1			1			1		1	10
		1					1					3						8
		1					3					1	1	2	1	1		13
		4		1				1				4	2		1	1	2	18
		3		1			1	2		1		4	1	4	5	1	3	38
		4					4	1	1			4	2	3	3	1	2	43
1		4		2		2	1					7	1	3	1	1	2	31
		1	1									6	2	3	1	4	3	30
		7		3			4	1		1		5	4	4	3	4	1	52
		3		3		1	2		1			8	1	3	2	1	6	51
6		2		2			5	1			1	6	3	5	4	3	1	66
1		3	1		4		9					7	3	8	2	2	2	70
		5		4	3	2	7	3		2	2	10	4	7	3	1	4	80
2	1	10		3		3	4	2	3	2		10	3	8	2	3	4	87
	1	12	1	4	4		4		2	1		6	2	5	2	2	6	71
1		9		7	2	1	9	2				10	4	8	7	3	3	110
1		7	1	3	1	2	8	2	3	1		7	2	8	1	4		108
4		14	1		3	1	9	1	4	4		13	4	6		3	2	126
2		7	1	1	2	1	11	4	1	1		24	5	6	1	1	2	125
2		13	2	2	3	2	14	1	1	3		13	5	8	2	5	1	145
2		7	1	4	3	4	5	1	2	2	1	13	9	8	1	4	3	136
		17		2	3	2	13	2		1		12	5	9	2	2	2	137
3		14	2	5	2	2	13	1		2		15	4	10	2	3	2	181
3		20	1	8	2	1	11	3	2	2		9	2	7	1	3	2	166
1		20	2	8	2		13	2	1			14	5	13	2	3		197
4		16		8	3	1	10	1	1			14	2	6		4	5	187
3	2	16	1	7	3	2	16	3	3	1		15	2	8	1	3	2	220
		21	3	6	4		11	1	1			16	3	9		3	3	207
4	2	18		5	1	1	8	5	1			18	5	7	1	3	1	213
2		23	2	2	2	1	12	1	3			15	2	8	1	2		216
1	2	14		1	2		9	1	2			8	1	2	2	1	2	207
	2	14	1	1	3		8	1	1			7	2	6			1	234
1		14		3			3	1				7	2	5			1	212
1		16		2	2		3	1				4	2	1		3	1	244
2		10		5	3	1	3	1				6	1			1	1	244
1		11	2		2		6					2	1	2				244
		10					3					2		1			1	260
		4	1	1		1	1	1				3		1				247
		3	1				2					1	1					221
	1	3																229
		2									1							201
		3																210
		2						1				1						184
																		160
																		111
			1															102
																		76
																		31
																		8
																		2
																		1
48	11	394	26	104	60	31	247	49	35	24	5	333	101	195	55	76	72	6593

system which have been recognized by the highest authority to be sound. The action marks, after these years of deliberation, the most important and significant step which such a body of men could take.

In the second place, the trustees passed the following vote:

> *Voted:* That the trustees approve the combination of insurance and annuity benefits as proposed by this Commission and the proposed Teachers Insurance and Annuity Association, as outlined in this report, as the practical and effective method of providing insurance and pension benefits for college teachers.

By this action the trustees approve the plan of combination of insurance and annuity as proposed by the commission, and accept the general plan of the Teachers Insurance and Annuity Association, leaving the details to be worked out by the Executive Committee. This decision also is one reached after years of reflection, and accepted by the trustees with the assurance that it is the conclusion reached by all authorities who have gone carefully into the problem of insurance and of old age annuities in the case of men living upon moderate, fixed salaries, such as college teachers receive.

There remained a third question to be dealt with by the trustees of the Foundation, which entailed a long and earnest discussion, namely, the question, what would be a fair and just action of the Foundation so far as the maintenance of the present system of pensions is concerned in the associated institutions? This obligation the trustees regard as their first duty, but a wide range of opinion has been expressed, not only in the reports made to the Foundation by the various commissions, but by the teachers themselves, as to how long the present rules shall be maintained without change, and as to whether they should apply to the younger men on the list of instructors, to whom the privileges of the new Insurance and Annuity Association are open. The trustees of the Foundation have also to consider another question,—what is a fair and reasonable assistance for the Carnegie Foundation to request from the Carnegie Corporation in carrying out the present rules and what is a reasonable request to make with regard to the older teachers not now associated with the Foundation?

These questions are difficult to answer. They gave rise to a most interesting discussion, and one which brought out the sense of responsibility of the trustees, both to the teachers and to the founder of these institutions, who has made possible the formation of an agency for providing insurance and annuities for college teachers.

In making and announcing the present rules, the trustees of the Carnegie Foundation took pains not to bind themselves by promises which they might be unable to fulfil. In connection with their original announcement, and as part of the same memorandum, they explicitly reserved the right to make such changes in the rules of retirement as experience may indicate as desirable for the benefit of the whole body of teachers. This right has been twice exercised: once in the year 1908, by the extension of the privileges of the Foundation to instructors and to widows, and again in 1910 by

the elimination of a service pension. These facts were fully known to the teachers in associated institutions. But so great was the desire of the trustees to meet every expectation that had been created, whether fully justified or not, and so serious was their reluctance to curtail privileges which had been mistakenly regarded as promises, that after full deliberation the trustees of the Foundation decided to ask the aid of the Carnegie Corporation in carrying out the present rules upon the exact terms suggested by the commission—even tho they knew that the demands made upon the trustees of the Carnegie Corporation were so great as to make it doubtful whether this request could be granted in its entirety. This request, forwarded in the latter part of May, 1917, was conveyed in the following resolutions:

> *Voted:* That the Carnegie Corporation of New York be asked to coöperate with the Carnegie Foundation for the Advancement of Teaching in carrying out the recommendations of the Commission in the following matters:
>
> (1) By enabling the Foundation to fulfil the expectations of teachers in the associated colleges and universities prior to the seventeenth of November, 1915. This will involve a large but limited liability extending over a number of years, the extent of which will be clearly indicated by the actuarial reports which accompany this record;
>
> (2) By enabling the Foundation to afford some assistance during the transition period of the next twenty years toward the retiring allowances of old teachers in institutions which are not now, but may later be, associated with the Foundation. At the present time the Foundation is devoting the income of more than $2,000,000 of its endowment to the payment of pensions to teachers not in the associated institutions.
>
> (3) By supplying the capital necessary to establish the Teachers Insurance and Annuity Association. The sum necessary to establish the Teachers Insurance and Annuity Association is $1,000,000.

The effect of these resolutions was to refer to the Carnegie Corporation of New York the question of the extent to which it is willing and able to coöperate with the Foundation in carrying out these provisions.[1]

[1] In reply to these resolutions, the trustees of the Corporation answered, in November last, that they had given earnest study to the requests of the Foundation; they expressed their appreciation of the difficult questions with which the trustees of the Foundation have had to deal, and indicated their desire to aid toward a wise and just solution of its problems. In extending such aid, however, the trustees of the Corporation stated that they were obliged to take into account not alone the expectations of the Foundation, but the needs of other causes as well; that as a sound principle for their guidance they must assume that such obligations as the Corporation undertakes, whether on behalf of the institutions bearing Mr. Carnegie's name or for other agencies, shall be determinate. The present trustees of the Corporation did not feel justified in mortgaging any large part of its income for an indefinite number of years. In the light of these general principles, the trustees of the Corporation stated that such aid as they could extend in enabling the Foundation to fulfil the expectations of teachers must be expressed in terms which are definite, both as to amount and as to duration. Bearing in mind these limitations, the trustees of the Corporation have agreed to supply, in answer to the request of the Foundation, thirteen millions of dollars, of which one million is to provide capital and surplus for the Teachers Insurance and Annuity Association, one million is to be devoted to the assistance of teachers and colleges not now associated with the Foundation, while eleven millions shall go to the creation of a reserve under the following conditions:

1. The Foundation shall begin at once the accumulation of a reserve fund for the liquidation of pension obligations to accrue from teachers in the associated institutions. Into this reserve fund the Foundation shall place its present surplus amounting to approximately one million dollars. To this reserve fund the Corporation shall contribute $5,000,000 par value of bonds, any deferred payments at the convenience of the Corporation to be made as of Janu-

THE PURPOSE OF THE TEACHERS INSURANCE AND ANNUITY ASSOCIATION

THE creation of an agency to deal with insurance and annuities for teachers which shall be at once enduring, feasible, and within the reach of men living upon small salaries is a problem of importance. The commission has recommended and the trustees of the Foundation have accepted a form of association described in the report of the commission, and based upon the recommendations of competent authorities.

Underlying the notion of organization as here represented are the following important principles, the recognition of which impelled the commission to accept this form of insurance and annuity organization. First, insurance in its legitimate form is a necessary complement to deferred annuities, and these forms of assurance mutually support each other, and therefore should be conducted by the same agency. Secondly, a corporation organized under the laws of some state, subject to inspection of the insurance department as to its reserves, its policies, and its methods of business, affords the greatest degree of protection to the holder of an insurance or an annuity policy. In the third place, such a company, founded upon sound economic and financial principles, offers the greatest return to the individual, while at the same time it brings together the whole body of teachers into a group in such fashion as to give to these teachers the benefit arising out of their coöperation. In the fourth place, it is a necessary principle of such a plan that whatever organization is adopted should represent primarily the interests of the policy-holders, and shall be subject to their scrutiny and oversight.

These principles are universally accepted to-day. It is not entirely clear, however, how an insurance agency shall be organized in order to give full effect to them. The attempt to do this has occupied the attention of legislators, publicists, and authorities on insurance for more than two hundred years.

The commission which reported upon this plan recommended that the organiza-

ary 1, 1918, with interest at four per cent. This reserve is to be placed in a special account by the Foundation, and the income from it added to the reserve from year to year for a period of ten years.

2. The Corporation shall pay into the treasury of the Foundation for the same period of ten years $600,000 annually, at the convenience of the Corporation. The entire annual income of the Foundation not required in the judgment of the trustees for the payment of pensions is to be carried at the end of each year to the reserve fund.
3. The reserve thus created shall be available at the end of ten years for the discharge of the obligations of the Foundation as they may accrue thereafter. Should the experience of the next fifteen years prove that some further adjustment is necessary at the period of maximum load, thirty years hence, the responsibility for such adjustment rests with the Foundation. Should the reserve prove greater than is demanded for this purpose, the residuum shall be added to the permanent endowment of the Foundation to be used for its corporate purposes.

This generous addition to the resources of the Foundation will provide, at the end of ten years, a large reserve, available, principal and interest, for the payment of pensions. This reserve, together with the income of the Foundation, will enable the trustees to expend during the next forty-five years in meeting the expectations of the teachers in the associated institutions over fifty millions of dollars.

Even this sum is not sufficient to carry out the present rules without some participation on the part of younger men; and as a part of the agreement to this joint arrangement, the trustees of the Corporation attached the following condition:

"The trustees of the Carnegie Foundation shall now and hereafter, from time to time as may prove necessary, revise their rules so that the pensions provided for shall not exceed the financial resources of the Foundation."

The determination of that participation and the revision of the rules in accordance with the agreement with the Corporation is now the first duty of the trustees.

tion and operation of the proposed association would be most effective if carried out as a stock company, but recommended also that the ownership of the stock be transferred to the trustees of the Association, after these had been chosen in a designated manner intended to represent the policy-holders.

This recommendation was made at the last meeting of the commission, and the action was necessarily taken without legal advice, or without full consideration by insurance experts. The examination to which it was subsequently submitted makes clear the fact that this exact form of organization would not only be extremely cumbersome legally, but that it would probably fail to carry out the intention of the commission to make the interest of the policy-holders the primary object of the association.

In attempting to make clear the reasons for a somewhat different organization which shall carry out the spirit of the proposals made by this commission, it is necessary to refer briefly to the elementary principles of life insurance and to the experience of the world in the organization and conduct of insurance business. Teachers naturally ask, Why not make use of the services of existing companies? The superannuation system of the Federated Universities of Great Britain has arranged for insurance and annuities thru existing companies; why should not the same arrangement be made for teachers in the United States and Canada? Why are certain forms of policy proposed as especially suited to teachers?

It is of course impossible to answer all the questions that a future policy-holder may ask, but the fundamental reasons for establishing this new agency and the reasons for choosing the proposed form of organization can be set forth in a few words.

LIFE INSURANCE AS A FORM OF SOCIAL COÖPERATION

Life insurance[1] as now established and practised is the work of the nineteenth century. It forms perhaps the most universal method of social coöperation.

The simplest conception of insurance would be represented by a group of persons, each singly in danger of some loss whose time of happening cannot be foretold. This group agrees to coöperate, so that when such loss occurs to an individual it shall be borne by all. Insurance is at once instituted when the liability of loss is recognized as common to all members of a given group, and a form of coöperation has been established to meet the loss when it comes, from a common fund.

Most men living under civilized conditions are confronted with two classes of risks which remain outside of possible calculation, and whose occurrence may deprive the individual of the fruits of his own labor or may subject his family to a humiliating dependence. These two classes of risks are—damage to property by fire, storm, or other misfortune whose occurrence cannot be anticipated, and premature death.

[1] The terms Insurance and Assurance are practically used synonymously. Assurance is by custom used only in connection with Life Assurance.

It is with this last risk that life insurance and life insurance organization is concerned.

Every useful life has a certain economic value, altho it is not always clearly recognized that the economic value of a human life diminishes as age increases. Thus, a teacher at forty, earning $3000 a year in salary, represents for the moment a capital investment of approximately $60,000. No wisdom of man, however, can predict how long the economic value of this life will continue. Men assume that it will last until a competence has been earned, or until children have grown up. In that expectation they marry and have families; but a considerable proportion of such men are doomed to disappointment. Unless some provision is made for the future, they are sure to leave their children dependent before they have come to the age of self-support. If the economic loss due to premature death falls on these families alone, they will be ruined. If the losses are distributed over a large group of families, they will be comparatively little felt. To anticipate this loss and to coöperate in some plan for meeting the loss, is life insurance in its simplest terms. In order that it may be accomplished in practice there are necessary two things: (1) foresight on the part of the individual; (2) an effective organization which he may join for common protection of himself and others. To develop these two things—foresight in the individual and an effective organization in which he may join—constitutes the function of life insurance.

There is a widespread belief that the fulfilment of an insurance contract represents an increase of wealth. This is entirely untrue. If a group of men, however large or small, insure themselves against accident, whether of property or of life, and whether the accident occur or not, the group will be the poorer by the cost involved in carrying out the coöperation. In the fulfilment of a life insurance contract no money has been earned by the company. There has been merely a redistribution of the money of the persons in the group, and all are poorer by the cost of the machinery necessary to carry out the coöperation. There is no increase of wealth in any form of insurance.

It is still more important to realize that the great contribution of insurance to civilization has not been by adding to wealth, but by its contribution to the character of the individuals who make up society. It has done this because it substitutes foresight for hazard, confidence for apprehension, unselfish reckoning with the future in place of a gamble with chance, personal thrift in place of neglect, and personal and family independence in place of dependence. These are the very forces of character upon which civilization stands, and it is in the development of these qualities that life insurance has rendered its great service.

LIFE ASSURANCE AS A BUSINESS

WHILE a conception of insurance has been present in the business world for many centuries, the actual business of insurance against risk, whether to life or property, could not be entered upon with safety until some estimate could be made of the probability of risk and hence of the fair cost for underwriting it.

For life insurance the first scientific effort to calculate the risk was made by the astronomer Halley in his work published in 1693, entitled "The Degree of Mortality of Mankind." His table was full of errors, but it was based upon sound principles and laid the foundation for the actuarial tables of our day. The life insurance companies are still engaged in working over the figures of mortality, but the tables of to-day exhibit the expectation of human life at each age with sufficient accuracy for practical business purposes.

As the notion of insurance spread in the civilized world three theories for the conduct of the business of life insurance developed: first, the socialistic theory that insurance is properly a branch of government (very early in the history of insurance it was proposed that the government insure all the houses of the inhabitants of London, a hazard which at the present moment would present some uncertainties); second, either an individual or a proprietary organization offering to underwrite the risk of life or property at specific rates; third, a mutual insurance association, in which a group of men came together, and paid assessments, agreeing to bear in common the losses which might result either to property or to life, as the case might be. In England and America the notion of governmental insurance was soon given up, but the stock company system and the mutual system continue to the present day.

One marked change has taken place. Individual underwriters gradually gave place to corporations, for two reasons: in the first place, the life of the corporation is indeterminate; in the second place, a considerable number of risks must be taken in order to create a safe business. This required large capital, such as could be got together only by the combination of a number of men. The corporation, therefore, in some form or other has gradually superseded almost all other agencies in the business of insurance. This remark applies particularly to America, where during the last fifty years many benevolent assessment organizations, offering insurance at approximate cost, arose. Such organizations, if they could be maintained as planned, could offer insurance at very cheap rates. The lack of capital to meet emergencies, the failure of members to pay assessments, together with loose business methods, have gradually weeded out these organizations, so that but few remain. The business of life insurance to-day is practically in the hands of corporations, especially organized to do the business of insurance, and provided with abundant capital to furnish security. These organizations are now so closely scrutinized by the departments of insurance of the various states that the security of the individual contract is protected as never before.

The actual business of a life insurance corporation rests upon well-known natural laws, so that the organization of its business is in theory extremely simple.

The cost of the life risk at any age is definitely fixed. Upon this basic cost the insurance company imposes what is called "the load,"—a charge intended to cover all cost of operation and to protect the association against unusual contingencies. It is the amount of the loading imposed and the handling of the money thus obtained from the policy-holders that make the differences between excessive and reasonable cost of insurance.

A life insurance association, whether a stock company or a mutual company, when it comes to do business finds itself confronted with four principal problems: 1. It must obtain lives to insure, and these must be lives of persons in normal health if the mortality expectation is to be realized. 2. The moneys obtained from the payments of the insured, as well as any capital or surplus put into the business, must be invested in safe securities. 3. The reserve to protect each policy must be definitely set aside. 4. The policies offered to the public must be upon actuarial lines, and the load on the policies must be apportioned in such a way as to assure to the policy-holders not only their security against risk, but also to persuade them of the reasonableness of the cost.

The need for these lines of activity practically fixes the form of an insurance organization. This organization consists of a central administration, including the president, vice-presidents, manager, and other officers, charged with the oversight of the whole business, including the investment of funds, the appointment of officers, and a correlation of the separate departments; next a division of solicitation, generally headed by a superintendent of agents, with its necessary adjunct of a medical department of inspection; and there must be, in the third place, the actuary with his staff.

When the company receives a premium upon a policy, a certain part of this goes into the reserve to protect the policy, part is arbitrarily put into a second reservoir, called the surplus, and the remainder, usually somewhere between twenty and forty per cent of the whole payment, is divided between the administration, the office of solicitation, the medical examiner, and the actuary's office, and a portion is returned to the policy-holders under the name of a so-called dividend. The problem is, how much shall be spent on salaries and offices; how much for purposes of solicitation; how much shall the actuary have for the expenses of his office and for surplus; what proportion shall be assigned to the medical department; and how much shall go back to the insured as "dividend"?

The life insurance company or association—for the two names are used indiscriminately—completes its organization in a board of directors, whose function is that of boards of directors in other business organizations, namely, to supervise and scrutinize the work of the executive officers, to fix the general policy, and to determine the important decisions of the company or association,—to exercise, in other words, the function of a governing body to the administrative officers.

The organization of a number of the larger insurance companies, with their financial exhibits for the fiscal year ending December 31, 1916, is shown in the table on the opposite page.[1]

THE GOVERNMENT OF A CORPORATION

THE conception of a corporation to hold property and to undertake and carry out obligations independently of the death of individuals has come down to the modern world from Roman law and custom. Its great development in America has come during the last fifty years and more particularly in the last thirty years. The corporation as we know it in America is organized to operate in some specific field of business—commerce, manufacture, transportation. In this domain the corporations have been enormously successful, and have played an astonishing rôle in the development of the industries of a new continent.

The great successes of the business corporation have arisen from the fact that it has concentrated into the hands of a few able men—oftentimes into the hands of one man—the power and the credit of a great organization, whose obligations were limited, not by the life of a human being, but were reckoned in generations. Such concentrations enable a man or a group of men to develop an initiative impossible under any other conditions.

The business corporation—including directors, officers, and employees—is organized primarily for administration—to do things. Its development has been like that of all other human organizations, including governmental and ecclesiastical ones. Every such organization, as time goes on, is exposed to the danger that organization as such may run away with the fundamental purpose for which it was created. Perhaps the most striking example is that of the Christian Church. When a Roman Emperor was converted to Christianity in the fourth century, what had been up to that time a religious and evangelizing movement was transformed into a powerful organization that took into its hands the reins of civil power, and for a thousand years an organization starting as a purely religious movement exercised the powers of civil government over a great part of the civilized world. In all human organizations—governments, churches, schools, corporations—the tendency is for the organization as such to run away with the fundamental purpose for which the organization was begun.

This arises generally out of the failure to distinguish between government and administration. The governing body, whether it be made up of politicians, priests, professors, or business men, becomes insensibly a part of the administrative body until finally there arises a time when there is no scrutiny of the organization independent of the administrative and executive officers. The founders of the American

[1] From the publications of *The Spectator Company*.

Name	Began Business	Organization	Number of Directors	Insurance in force	Total Assets	Surplus	Income from Policy-Holders	Total Income	Paid to Policy-Holders	Dividends	Commissions and Agents Expenses	Total Management Expenses	Policies in Force
Aetna Life	1850	Stock	9	$467,545,657	$117,980,903	$14,867,223	$14,865,649	$20,837,431	$12,623,637	$1,505,144	$1,891,824	$2,940,923	202,971
Bankers of Iowa	1879	Mutual	7	415,757,749	30,345,087	709,507	8,026,020	9,563,051	5,247,861	462,815	1,026,104	1,716,754	197,437
Connecticut Mutual	1846	Mutual	12	253,439,405	76,671,153	3,401,489	8,101,068	11,902,166	7,592,594	1,507,337	919,835	1,452,626	107,262
Equitable of New York	1859	Stock	50	1,607,089,581	562,862,962	12,095,573	59,438,277	85,626,540	58,915,422	13,226,900	6,640,982	9,949,026	709,972
Equitable of Iowa	1867	Stock	14	118,320,453	19,890,951	1,644,139	3,811,856	4,871,759	1,785,017	584,080	654,492	988,061	73,100
Fidelity Mutual	1879	Mutual	12	135,643,006	32,181,517	1,427,153	4,998,741	6,792,160	4,697,888	734,778	593,995	1,012,824	65,486
Germania Life	1860	Stock	19	158,622,130	53,795,043	1,939,994	6,286,790	8,953,310	5,768,910	1,091,874	859,016	1,315,318	82,780
Home Life of New York	1860	Mutual	18	133,493,328	32,821,463	1,650,922	4,489,378	6,127,839	3,536,233	628,406	609,642	961,260	64,876
Massachusetts Mutual	1851	Mutual	20	410,166,920	93,240,377	6,543,081	13,245,808	17,996,834	8,780,614	2,622,640	1,679,700	2,535,636	180,358
Metropolitan (Industrial)	1867	Mutual	24	3,482,431,996	608,097,634	28,167,511	125,261,318	152,387,597	52,175,603	8,166,624	21,348,971	30,651,344	16,952,769
Missouri State	1892	Stock	13	129,199,279	14,142,964	2,086,528	4,180,880	4,985,867	1,328,745	142,407	1,035,005	1,463,539	72,332
Mutual Benefit	1845	Mutual	12	830,768,806	204,562,348	8,935,262	29,178,043	39,733,187	21,015,157	6,516,506	3,067,558	4,188,133	339,608
Mutual of New York	1843	Mutual	34	1,687,797,276	624,530,044	16,252,740	61,906,085	91,800,916	68,654,844	17,518,117	6,529,073	10,000,138	756,623
National Life	1850	Mutual	13	212,037,400	66,832,323	4,563,829	7,839,960	11,083,885	6,846,100	1,471,000	967,290	1,470,263	106,027
New England	1844	Mutual	9	337,404,704	79,095,501	5,366,452	11,067,837	14,774,267	7,750,210	2,010,840	1,378,865	1,970,107	139,200
New York Life	1845	Mutual	25	2,511,607,274	866,988,841	28,134,735	96,159,821	137,680,256	81,415,138	19,695,355	9,667,813	13,718,058	1,228,601
Northwestern Mutual	1858	Mutual	31	1,505,464,984	363,084,218	10,604,019	51,899,489	70,665,771	42,442,088	13,151,403	5,459,220	7,424,637	576,197
Pacific Mutual	1868	Mutual	17	171,913,618	36,339,131	1,042,545	6,146,701	8,195,253	3,443,763	705,062	888,791	1,472,435	89,293
Penn Mutual	1847	Mutual	26	699,026,546	172,496,444	7,753,977	25,312,035	34,075,387	17,772,726	4,002,946	3,197,898	4,496,205	253,793
Phoenix Mutual	1851	Mutual	14	179,815,823	42,393,350	1,968,516	6,280,042	8,667,108	4,810,531	1,063,664	886,781	1,424,734	92,808
Provident Life and Trust	1865	Stock	15	353,127,209	94,631,505	5,604,125	12,504,778	17,196,177	9,669,929	1,965,740	1,344,235	2,201,764	137,525
Prudential (Industrial)	1875	Mutual	18	3,092,995,164	432,019,823	21,273,634	99,990,191	119,009,983	47,278,096	12,958,432	19,401,679	26,145,110	14,933,200
State Mutual (Massachusetts)	1845	Mutual	16	203,684,314	51,675,248	3,108,792	7,025,526	9,520,474	5,148,854	1,346,841	842,201	1,246,821	81,754
Travelers	1866	Stock	14	476,315,842	89,910,218	6,368,618	13,735,721	18,476,372	6,650,621	72,886	2,140,021	3,187,801	170,597
Union Central	1867	Stock	17	472,603,217	114,684,245	6,757,984	16,113,650	23,644,524	13,854,301	2,858,365	2,058,820	3,786,938	212,250

Constitution never built more wisely than when they separated the governing function from the administrative function. The permanence of our government depends upon the maintenance of that principle. The business corporation, when its activities enlarge so as to include the affairs of many interests scattered over wide areas of the world, finds itself confronted with this same problem of differentiating between government and administration, and of providing thereby a scrutiny, independent of and dissociated from the management, that shall never lose sight of the primary purpose which the corporation was intended to serve. It is largely out of the failure to do this that the government and scrutiny of business corporations is being taken over more and more by state and national governments thru agencies that are nearly always clumsy, oftentimes conflicting, in many cases unjust to desirable initiative and enterprise, and limited in their ability either to prevent disaster or to improve methods.

Is it possible for such a corporation—for example, for an insurance company—to provide such a government as would convince the public that there was an independent scrutiny of the management; and that would keep constantly in view the larger purpose of the corporations? That the problem is a difficult one no one will dispute, but its solution is one of primary importance in corporate existence.

Certain conditions that must be fulfilled in setting up such a régime can at least be pointed out.

1. The governing and scrutinizing side of a corporation must be dissociated from the administrative and managing side.

2. A body intended to exercise the powers of government and scrutiny must be prepared to deal with the larger matters, not mere detail. It therefore must be not only independent of the management, but should be made up of a group—probably small—having knowledge both technical and practical of the work of the corporation and able to avail itself of expert aid.

3. While the function of such a board will be primarily one of scrutiny, it must carry certain powers of government, if its decisions are to be valid and effective.

4. In a corporation organized as a stock company these conditions would in large measure be attained if the stock, instead of remaining in the hands of a few interested owners, were placed in a carefully chosen board, whose powers were closely defined. These powers should include the confirmation of directors and officers, the approval of salaries, the approval of the general budget, and a scrutiny from year to year of the results of the corporation's service from the standpoint of the public. The success of such an experiment would depend entirely on the selection of a number of independent, able, and conscientious men, willing to give time and thought to their duties.

The difficulties in the practical operation of such a plan are evident enough. It is neither easy nor pleasant for any management to submit to scrutiny from an independent agency. The danger of friction between the scrutinizing body and the operating body will be always possible, but unless some such differentiation is effected the primary purpose for which the corporation was instituted may fail of realization.

Here again we may draw a practical lesson from the long experience of political government. Every great corporation is, in the larger sense, political; that is to say, it has to deal not only with matters of business and of finance but with human hopes and prejudices and aspirations, with social and economic decisions that may affect a million policy-holders. And the danger which besets a corporation, like that which besets a government, is that the appreciation of these human hopes and aspirations and prejudices and ambitions may be confined to too small a circle.

The Government of India is administered by a Viceroy acting under the supervision of a Secretary of State in England. The correspondence between these two officers will show on almost every page a protest from the authorities on the ground against the scrutiny of a detached, distant foreign office acting under a constitutional government. No doubt local efficiency has sometimes suffered, but no man who studies the history of fifty years of Indian government by England can doubt that such detached scrutiny has made for human freedom, for the education of the individual, for the ultimate development of sound and just government, and to this among other causes is due India's loyalty to-day.

One of the wisest of Secretaries of State for India in addressing one of the ablest of Viceroys has described the working of the arrangement in these words: "When you say that the modern House of Commons is 'perhaps the greatest danger to the continuance of our rule in India' I cannot for the life of me discover any evidence, *so far*, for any proposition of that kind—quite the contrary. . . . You say that a crisis will come one of these days 'if the Government of India is not given a free hand to rule the country they understand.' . . . This notion of the 'free hand' is really against both letter and spirit of law and constitution. . . . So, in short, you do not persuade me that the Government of India is sure to be right from its knowledge of local conditions. . . . As to your doctrine that 'it was our total want of sympathy and our failing to understand existing conditions that cost us the American colonies,' forgive me for saying that I never read that page of history in your way. On the contrary, it was, among other things, the men on the spot who did the mischief—misleading opinion at home and violently irritating opinion in the colonies. . . . So in short you do not persuade me that the Government of India is always sure to be right from its knowledge of local conditions. . . . On the other hand I am not at all disposed to belittle the authority and competence of the Government of India, but they are none the worse off for a few stray beams of light from men who had as good a chance as they, and a million times better, of studying the multifarious arts of political navigation."

This problem of government—how to provide effective administration and yet obtain an independent scrutiny free from the parallax of nearby details—is age-old. Every political government must deal with it. No less truly a great corporation dealing with world-wide interests that are social, economic, and financial must somehow meet and solve the same problem.

SOLICITATION AND MUTUALIZATION

INSURANCE, in whatever form of organization it may be expressed, aims to do two things—first, to arouse the individual to foresight and a sense of obligation to defend himself and his family against the hazards of life, and second, to offer an effective form of coöperation whereby men who are foreseeing may coöperate for their common protection. While insurance is therefore primarily a matter of social coöperation, it cannot be carried on securely except by the use of business methods and organization. The essential differences as to how these two ends may be accomplished have concerned themselves mainly with two matters—the method by which the individual may be aroused to his opportunity and to his duty and the form of organization by which the necessary business shall be transacted.

In the experience of two hundred years the only method by which large numbers of men have been led to insure is thru the direct solicitation of agents. This is particularly true of that great majority of men who most need insurance, men of small income living on fixed salary. This is strikingly brought out by comparing the number of policies written by the great companies that have a highly developed system of agents with those written by other companies that have no such system. There are in England a number of companies that practically sell insurance over the counter without agents and with very limited advertising. One of the most interesting of these is the Equitable of London, the oldest English company, chartered in 1762. The following comparison with its namesake, the great American Company founded nearly a century later (1859), is taken from Bourne's Insurance Directory, and shows the policies written in 1913, the year before the war. The table exhibits the number of policies written by each company in 1913, together with the ratio of the cost of the business (including commissions and administration) to the total premiums paid that year by policy-holders.

Company	*New Policies 1913*	*Ratio of Expense to Premiums paid by Policy-holders, 1913*
EQUITABLE (London)	247	6.50%
EQUITABLE (New York)	64,375	20.48%

It is of course a fundamental question as to whether teachers can be induced to avail themselves of insurance facilities, however favorable, without the pressure of the soliciting agent. This is a matter which only experience can demonstrate. One great difference exists in the situation which confronts the regular insurance company and that which the proposed Teachers Insurance Association must meet. Teachers throughout the United States and Canada are in groups in the various colleges. Of these there are some nine hundred whose instructing staffs range from the small college having a dozen professors to large universities like Columbia and Harvard, where hundreds of men are gathered in a single teaching group. The problem of dealing with groups of educated men living under similar economic and social

conditions makes the question of solicitation or conviction (as it might be called) entirely a different one.

The company whose experience would seem to throw most light on this matter is the Presbyterian Minister's Fund, founded in 1759, and which is proud to call itself "the first Life Insurance Company in America and the oldest Life Insurance Company in the World." This company is governed by a self-perpetuating corporation of sixty, all of whom must be members of the Presbyterian Church. At each annual meeting the corporators choose eleven directors, to whom the administration of the affairs of the corporation are committed. While the company, therefore, is not legally a mutual company and the policy-holders are not represented directly in the election of directors, the organization does provide an oversight independent of and separate from the management.

The business of this company has been most successfully conducted. It has steadily kept in view the purpose to offer insurance to a particular group at the lowest possible rates consistent with security. It declined to undertake the insurance of teachers. Its business has shown during the last decade a most creditable growth. At the beginning of the year 1917 the company had in force 14,203 policies covering $23,620,255 of insurance. During the preceding year 1325 new policies had been written, while 665 policies had ceased to be in force by reason of death, surrender, lapse, etc. Here, in other words, is a vigorous, successful insurance agency giving to a group in the body politic the benefits of insurance at a very low cost. It is able to do this, in the absence of contributed capital, by prudent and economical management without agents. The management of the company testifies that the best agents are their policy-holders who, realizing the benefits of such a service, spread to others the knowledge of its facilities. Whether the teachers, gathered as they are in groups and therefore more easily accessible, will be open to the same arguments that have influenced the ministers is a question for the future to decide. The ability of the members of a given group to avail themselves of the advantages offered them under any scheme of insurance depends not alone on their intelligence, but on the possibility of convincing their judgment in respect to a matter directly in their own interest but lying outside the field of their ordinary experience. Some of the experiences of life insurance companies in offering policies particularly favorable to persons of a given group have been extremely disappointing by reason of the fact that it proved impossible to gain their attention and interest.

The form of organization of the life insurance company is one which has been the subject of continuous debate since life insurance contracts began. A steady development has taken place having its origin mainly in the growing demand that as life insurance is not primarily a business, and since it produces no wealth, the management of funds accumulated thru payments of the insured should involve some participation and oversight on their part.

It was this feeling that led in time to the substitution of a company or corporation

for one individual as an underwriter of insurance, and which in time has brought a certain criticism and distrust upon the notion of a proprietary company controlled by a stock ownership in which profits were paid to the owners of the stock. The difficulties of such proprietary ownership involving the interests of thousands of individuals in a matter so vital as life insurance are evident enough. In response to this demand there has grown up the mutual company, to-day the popular form of insurance organization and that most favored by legislators.

Mutualization must be considered both from the point of view of a distribution of expenses and of surplus, and from the point of view of government and scrutiny. From the first point of view mutualization conceives of the relation between the company and the policy-holder as a mutual relation. It is from this that the name comes. Each policy-holder pays a part of the expense in proportion to the benefits received, and all surplus funds which may result from the business over and above those needed for necessary expenses and the security of obligations maturing in the future are the property of the policy-holders. The method is one which appeals generally as fair, just, and in accord with democratic ideals.

As a means whereby the policy-holders are to exercise their control and oversight, the charter of the mutual company usually provides that directors shall be elected at the annual meeting of the corporation by the votes of the members. A typical provision is the following:

> "The annual election of members of the Board of Directors to fill the places of the outgoing class shall be held on the second Tuesday of June in each year. Notice of the time and place of such election shall be given in two public newspapers printed in the City of New York and in the state paper daily for one week preceding such election."

It is perfectly evident, however, that a body of hundreds of thousands of policy-holders scattered over the world are unable, either by direct voting or by any method of voting by proxy, to take effective part either in the control or the scrutiny of the management. Mutualization no doubt represents a step in the evolution of the insurance business which will in time result in the improvement of the present machinery in such manner that the policy-holders, by representatives properly chosen, may be able to exercise a real and wholesome supervision and scrutiny from the standpoint of the policy-holder. Such a progression would be in accord with the history of the development of all great human organizations.

PROPOSED ORGANIZATION OF THE TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA

It has been pointed out that the problem of insurance during the wage-earning period of life cannot be separated from that of the old age annuity, that these mutually support and reinforce each other. What is needed is an agency that can furnish these two kinds of contracts to teachers upon terms that shall be secure, adapted to the needs of men on fixed salary, and within their reasonable ability to pay.

In all their discussion of this question the trustees have acted under the advice of competent actuaries. Their conclusion was that none of the large companies could afford to offer teachers net rates of insurance, free of overhead charge. The Presbyterian Minister's Fund, the oldest insurance company in the country, was asked whether it would undertake insurance upon the lives of teachers, and replied that it did not feel ready to undertake such a business. The actuaries further pointed out that the number of teachers involved was large enough to constitute in time a large insurance business. They are grouped in convenient bodies, with each of which the Carnegie Foundation has already an educational relation. Agents are therefore not needed in order to bring to their attention the matter of insurance and of old age annuities. Under such conditions a company freed from overhead cost by a paid-up capital and surplus, upon which no earnings can be paid, can furnish insurance at the net legal rates, which is, of course, impossible for the ordinary insurance company whether of the mutual type or of the stock company type.

A form of organization is desired which shall furnish sound business administration, while at the same time providing a scrutiny of the management of the company from the standpoint of the policy-holder.

Under the laws of New York a company proposing to write insurance and annuity contracts may be organized either as a stock company or as a mutual company. It is proposed to organize this company with a paid-up capital of $500,000, divided into 500 shares of $1000 each, and with a paid-up surplus of $500,000. Only two objections to the stock form of organization have been urged: First, control of stock by owners, who desire to exercise undue influence in the investment of the money of the Association. The second objection urged against the stock company is the cost which would be involved in paying dividends on the stock. Both of these objections are entirely removed by the form of charter that has been proposed.

There are very real difficulties in mutualizing such a company. In the first place it would be difficult and expensive for policy-holders scattered over the United States and Canada to act as individuals in choosing trustees. Such control as can be exercised in this way is likely to be more apparent than real. Outside of all this, however, a company doing business at net rates will have a very small margin of profit. The so-called "dividend" would in some forms of policy amount to a very small sum in the earlier years. A mutual company organized under the laws of New York and writing parti-

cipating policies must distribute the dividend to each policy-holder annually. In certain forms of policy issued at net rates these dividends would be so small that their distribution would cost more in some years than the dividend. As a matter of practical operation, therefore, mutualization for a company doing business on net rates is not only difficult but greatly increases the overhead cost.

The money to provide the capital and surplus of the Insurance and Annuity Association has been given by the Carnegie Corporation, a charitable corporation devoted under its charter to the increase and diffusion of knowledge among the people of the United States. The ownership of the capital stock will therefore in the first instance be in the hands of this corporation.

In the report of the Commission that recommended the proposed Association it was suggested that this stock, which bears no dividend, be transferred to the trustees of the Association. Further consideration shows that this arrangement would not only be clumsy from the standpoint of legal requirement, but would entrust the management to a self-perpetuating board removed from any direct control of the policy-holders. The problem of determining the form under which the stockholders may participate in the control of the Association and may secure an independent scrutiny of its management, while avoiding the objections to complete mutualization, is not entirely simple. Not only the policy-holders but the colleges also will make payments into the Association. It is clear that with policy-holders in groups in these institutions the machinery can be provided whereby they may have a real participation in control and an independent scrutiny. To work out this problem satisfactorily will require coöperation among these groups of policy-holders and institutions. At present there are no policy-holders. The Carnegie Corporation is the only agency which has put any money into the enterprise. The Corporation will therefore for the present hold this stock in its possession. As soon as a group of policy-holders has been formed sufficiently large to be representative of the college and university teachers of the United States and Canada, the Carnegie Corporation, in conference with the interested parties, will proceed to provide the machinery by which the policy-holders, thru representatives selected by them, shall participate in the management of the Association and the election of trustees.

In organizing the Association for business the laws of the State of New York govern practically all details. The law provides that the number of the trustees shall be not less than thirteen. It is proposed that sixteen trustees or directors be chosen with terms of four years.

The selection of these trustees is a matter of great importance, for they are to be responsible for the management of the Association and for its future success.

The board must contain a group of men of the highest financial ability and wisdom, who are able to advise in the question of investments. The government and care of the funds of the Association constitute the first and most important obligation. Happily the best men in New York, men thoroughly acquainted with the value of

securities, are ready to give their time and thought to this work, and to take places on this board of trustees as a public service.

The actuary of the company or the consulting actuary should likewise be a member of the board, for an insurance company can never afford to lose sight of the actuarial point of view.

It is desirable that the trustees include a few representative college teachers, men in whose judgment the teachers of the country have confidence, and who are conversant with the conditions and needs of teachers. It is more important that such teachers be representative and of sound judgment than that they be policy-holders, and the charter does not require that a trustee shall be a policy-holder.

Such a corporation offers to the teachers of the country not only entire security, but it also affords the opportunity to work out the problem of insurance and annuities under the best conditions, and it contemplates an independent scrutiny, which, so far as human foresight can see, will always view the operations of the Association from the standpoint of the teacher's interest.

POLICIES TO BE OFFERED BY THE ASSOCIATION

The law governs in great minuteness the operations of a life insurance company, and the conditions and restrictions imposed upon the policies offered to the public are definite and precise. The Teachers Insurance and Annuity Association will, of course, comply with these conditions in exactly the same way as any other insurance or annuity agency.

As has been already explained in detail, contracts will be offered both for insurance and for annuities, and for the great majority of teachers it is proposed that the assurance and annuity contract shall supplement each other. The chief advantage in the policies offered by this institution is the opportunity afforded to the teacher to obtain insurance and annuity contracts which do thus supplement each other.

Let us consider first the insurance policies to be offered.

Life insurance policies are classified as non-participating or participating. Non-participating policies definitely guarantee a fixed premium and a specified sum insured, and do not entitle the insured to receive any other benefits than those expressly set forth in the contract. The premium paid by the policy-holder is less than that of participating policies, and may be as small as the net cost.

Participating policies, on the other hand, require the payment of a premium considerably larger than that necessary to meet the company's liability under the contract, and as a consequence the insured is allowed to receive a portion of the surplus in the hands of the company in the form of what is called a "dividend." The terms "mutual," "participating," and "dividend," as used with reference to life insurance, have done much to mislead the public.

To state the case briefly, in a non-participating policy the company charges as small a premium as it is considered safe to charge in order to fulfil its contracts, and guarantees a fixed return. In the participating policy the company charges a much larger premium and uses the excess, partly to pay expenses, partly for the solicitation of business, and partly for the accumulation of a surplus. In the distribution of this surplus the holder of a participating policy shares.

The policies issued by the Teachers Insurance and Annuity Association will be non-participating. This is necessarily so, inasmuch as the policies are issued at net cost, that is, at the cost computed on the basis of the mortality table and the rate of interest fixed by law.

This does not mean that there may not be accumulations over and above the net cost. Two sources of such profits exist. One is to be found in the fact that the mortality rate for teachers is less than the mortality rate of the legal tables. In the second place the rate of interest fixed by law, three and a half per cent, is less than that which will be earned on the money. In the natural order of things, therefore, moderate profits will be realized, and a surplus gradually accumulated. In time these profits will be distributed by the Association to the policy-holders, since its charter does not allow it to accumulate funds for profit, but the Association cannot put this assurance into a contract, nor can it be used in advertising as a means of securing business. The form which such distribution will take will need to be determined by the experience of the company, and by the wishes of the policy-holders. In the system of insurance and annuities instituted by the Federated Universities of Great Britain the distribution takes the form of an addition to the annuity or to the insurance.

There is a practical business reason which makes it well-nigh impossible for a company offering insurance at net rates to write participating policies. In the minute legislation passed after the investigation of 1905, the laws of many states were so framed as to require life insurance companies to make the distribution of participating policies an annual distribution,—a law which most insurance men agree to be unfortunate. It is evident that distributions on a participating policy issued at net rates would be so small during the first years of its existence that if distributed in annual dividends they would not in some cases pay the cost of postage.

The forms of non-participating policies issued by the Association will be those ordinarily issued by a life insurance company, and these again fall into two groups:
1. Straight life insurance policies dealing simply with the risk of premature death.
2. Endowment or investment policies, in which insurance is issued both as a protection against risk and as an investment.

In the first group fall three kinds of policies.

1. Term policies.
2. The ordinary whole-life policy, and a whole-life policy fully paid at sixty-five.
3. The limited-payment policy.

In the other class the policies offered will be—

4. Twenty-year and thirty-year endowment policies.

The Teachers Insurance and Annuity Association, in offering these policies, is appealing to a constituency of unusual intelligence. It ought to be able to place before such a constituency in convincing form, not only the simple principles of life insurance, but also those considerations which enable each individual to determine, in view of his own situation, that form of policy suited to his needs. The literature issued by the life insurance companies of recent years has been full of the injunction to "fit the policy to the client," but it is only fair to say that very little progress has been made in this direction, either by the life insurance solicitors, or even by the purchaser of insurance. It is estimated by competent authorities that three-fourths of all the life insurance written in America to-day falls under three policies,—the whole-life policy on the continuous plan, the twenty-year payment whole-life policy, and the twenty-year endowment policy. The remaining one-fourth of insurance which has been written is represented by a great variety of policies. The insurance of every individual can be covered by the forms of policy just mentioned. It will, therefore, be advisable to present in brief form some statement of the advantages of these various policies, and their fitness to the circumstances of the men on modest salaries, such as teachers.

Term Insurance. The term policy in life insurance is a contract furnishing protection to the extent of the face of the policy, for a limited number of years, stated also in the policy. The face value of the policy is payable only if death occurs during the stated term. Nothing is paid in the case of survival beyond this term.

The term policy has been sold by the life insurance companies mainly to men who wanted a financial protection against premature death during an interval of stress or unusual financial responsibility. The reasons why the advantages of the term policy have not been brought to the attention of more people are several. In the first place, the insurance companies issue term policies for only a limited number of years, the maximum period by any company being twenty years, altho arrangements for reinsuring at the end of such periods are given by some companies. In the second place, the term policy being the cheapest form of insurance carries the smallest commission. In consequence it has not been a policy which the agent cared to push. In the third place, the margin for borrowing on a term policy is small, and as the policy approaches the end of the term the value vanishes. It is, therefore, not a policy favored by purchasers of insurance who want to borrow. Finally, the term policy for men upon salary must articulate with an annuity policy if it is to serve the full purpose of protection. The combination of a term policy with a deferred annuity contract, in other words, the insurance against premature death with insurance of income in case of survivorship, has never been presented to the purchaser of insurance in an effective way. In fact, insurance of income, which is practically what an annuity contract means, has not yet taken root among the American people—partly for the reason that the insurance companies have not been greatly interested in it. It is in the combination of a term

insurance policy with a deferred annuity policy that the man of moderate means finds his best protection, both against premature death and dependence if he lives to old age. In making such a combination he pays for insurance when it is cheapest, and for the annuity also when it is cheapest.

The term policy for a period of five or ten or twenty years is designed ordinarily to protect those interested in the life of the individual against premature death during a period of unusual responsibility. It serves in that respect a useful purpose, but the weakness of such an arrangement is that at the end of the term, whether long or short, the individual finds himself without protection, and to secure insurance at the end of such a period is usually a costly process.

Let us consider the use of the term policy for a longer period, and particularly from the standpoint of the teacher who may count upon secure tenure of place during his active period of life, and who desires to be assured against dependence when his period of activity comes to an end.

A teacher ordinarily begins his professional life about the age of thirty. It may be assumed that in a normal life his active service will last to the age of sixty-five, and that at that time or within a few years thereafter his income-earning power will either greatly diminish or vanish altogether. If he is a man without fortune, he needs to insure his family to the extent of his means against his death during the productive period of his life, and to insure himself against dependence in case he lives after his income-earning power has diminished or ceased. The combination of the term policy with an annuity contract accomplishes these two objects, under conditions most favorable to the purchaser.

A teacher, by taking out term insurance during the period of his productive life, would ordinarily arrange to have the various policies he takes out end at different periods. For example, he would take out part of his insurance to end at sixty, part perhaps at sixty-four, part at sixty-eight or seventy. In the meantime, as will be explained later, under his annuity contract there will be accumulating at the rate of four and a half per cent a fund which, when he comes to the age of sixty-five or sixty-six or sixty-eight and his term insurance runs out, will provide an income for himself and his wife. A term insurance policy taken out, not for a short term of years, but for the normal period of professional activity, is not only the most economical, but if combined with an annuity contract forms the most effective protection against dependence due either to premature death or to the failure of income-producing power in old age. The term insurance policy so used is the simplest and most scientific application of the principles of life insurance.

This fact will be appreciated by a brief comparison of the term policy with the ordinary whole-life policy, that is, a policy upon which payments are made during the whole period of life, and which matures only upon death. When a man or a woman takes out insurance upon his life under any form of policy he is seeking to protect his dependents against an economic loss. No life insurance policy can protect a widow or

a child against the sorrow and pain of the death of the husband or father. The life insurance policy finds its reason for existence merely in the fact that the head of the family, so long as his active life continues, represents a certain income-earning capacity, and it is against the loss due to the cessation of this capacity by premature death that the insurance policy is taken out. An individual who has no income-earning capacity is not, strictly speaking, an insurable risk because there is no economic value to insure.

From this point of view a man should insure his life only for that period when it has a distinct economic value, in other words, for the productive period of his life, when his income-producing power is at least an equivalent of the capital involved in the policy.

The matter can be best illustrated from fire insurance. The man who owns a house insures it against loss by fire by a term policy extending over, let us say, five years. If, at the end of that time, the house has greatly deteriorated and its actual value has diminished, he will insure it at a smaller sum. In exactly the same way, when a man takes out life insurance and lives to a great age he continues to pay insurance for many years on a risk which has ceased to have an economic value. He would have been far better off financially and his family far better circumstanced to have carried the risk of premature death only during the years of productive life, and to have put the additional money which he has paid year by year into the form of a deferred annuity available to himself and his family. An additional reason prompting this course lies in the fact that when the individual has passed the period of income-earning power the payment of the premiums on his policy becomes a burden unless he has independent means.

The term policy, therefore, provided the term is sufficiently long to cover the productive period in a man's life, and provided also the insurance contract articulates with an annuity contract, forms the cheapest, the most scientific, and the most satisfactory form of protection against the two principal sources of dependence which the college teacher and his family have to face. To realize this, let us consider what happens to the teacher and his family under the various contingencies that may be expected.

If he begins at age thirty with term insurance and carries at the same time an annuity contract to which both the teacher and his college contribute, he will naturally increase both as time goes on and as his salary increases. His term policies will be taken out to end at ages varying from sixty to seventy years; his annuity contract, to begin at sixty-five or such subsequent period as he may determine, to be available for himself and his wife—any surplus remaining after their death to be returned to his estate.

If he dies before the age of sixty-five—and fully one-third of the teachers who begin at thirty will die in this interval—his family will receive not only a much larger sum in insurance than the same money would have purchased under any other plan, but they will receive in addition all of the accumulations to his credit under the annuity contract.

If the teacher lives beyond sixty-five or sixty-six or sixty-seven, as the case may be, and the time comes when his professional work must cease, he will have at his com-

mand an assured income. Furthermore, this income will not carry the burden which would arise from the premiums of a policy maturing only at death. Whether, therefore, a man dies before reaching the end of his productive period of life, or whether he lives to old age, he and his family can for the same money obtain a larger measure of protection from the combination of a term policy with an annuity contract than in any other way.

In discussing this matter with teachers I have found a widespread feeling that if a man takes out a term policy to end at sixty-five, and receives no payment at the end of the term, he and his family have somehow or other failed to realize the benefits of life insurance. The situation is again completely illustrated by fire insurance. If a man insures a house for five years and pays only the exact net cost of the risk and the house does not burn down, he receives no payment at the end. As a matter of fact, he has received complete payment for his expenditure thru the fact that the risk to the extent of the fire insurance policy has been carried by the insurance company. The man who pays for term insurance during his productive period of life, and who during that time has provided a sum of money for an income contract after retirement, has developed not only the wisest form of foresight and thrift, but he has bought both kinds of protection at the cheapest possible rate, and has paid for each of them during that period of his life when it was cheapest. No other form of life protection for a man upon moderate fixed salary compares with that offered by the combination of such term insurance as is here described with an annuity contract.

Whole-Life Policies. The ordinary whole-life policies issued by the life insurance companies provide for the payment of the face of the policy upon the death of the insured whenever this may occur. Such a policy represents life insurance in a most sincere form, that is to say, a protection provided entirely for the benefit of others.

The advantages of the whole-life policy are several. Next to the term policy it is the cheapest form of insurance. For example, on a thousand dollar life insurance at age thirty the gross annual premium charged by strong companies would be approximately—for a whole-life policy, \$22; for a twenty-payment life policy, \$30; and on an endowment policy maturing in twenty years, \$45. These costs are, of course, the gross costs and do not include such dividends as may result. Under the premium rates offered by the Teachers Insurance and Annuity Association, which are net, a man of thirty could purchase a term insurance policy ending at sixty for \$11 a thousand, one ending at sixty-five at \$12 a thousand, and one ending at seventy at a little over \$13 a thousand. While these figures as just stated are not entirely comparable, it remains to be said that, since there is no overhead charge for the business of the Teachers Insurance and Annuity Association, the costs here shown will result in what is the equivalent of a dividend as time goes on.

The advantages of the ordinary life policy are essentially these. It is a most legitimate and direct use of the principles of life insurance. It furnishes protection at a moderate rate. In view of the use of the annual level premium, the payment during the

early part of the policy is in excess of the current cost, and the cash or loan value of the policy will therefore increase the longer it is in force and the premiums are paid. A $1000 policy, for example, taken out at age thirty will, at the end of twenty-five years, have a loan value of approximately $400, and a paid-up, participating insurance value of something over $600. Furthermore, the payment of a certain sum of money in cash upon the death of the wage-earner in a family is often a matter of great importance, so that a small policy at least on the life plan furnishes an admirable support and security to a dependent family, and a supplement to term policies which may be of great value if one has the income to pay the premium after retirement. A teacher having five or ten thousand dollars in term insurance and a small policy on the whole-life plan has provided against additional need.

The Limited-Payment Life Policy. The limited-payment life policy is a contract under which the face of the policy is not payable until the death of the insured, but premiums are paid for a limited number of years only, after which the policy is a paid-up policy for its full amount. Twenty-year and thirty-year payments are those ordinarily used, and will be the forms of contract offered by the Teachers Insurance and Annuity Association together with a life form with premiums to cease at age sixty-five. This form of policy is also one thoroughly in accord with the purposes of insurance, and it has the great advantage that the payments are made during the active period of the life of the insured. Since the payments are limited in number, it necessarily follows that the annual premium will be larger than that necessary when the annual payments are continued over a longer term or throughout the whole period of life. The advantage lies in the fact that the financial burden involved in paying up the insurance has been discharged during a period of life when the income-earning power of the individual is at the maximum.

On account of the large annual premiums the limited-payment policy is burdensome to those whose income is small. The limited-payment policy is a step between the pure insurance conception and the forms of investment insurance offered in endowment policies. This form of policy can advantageously be taken up only by the individual who has an assured income, or a salary which offers a margin above his immediate needs. It is a form of policy in which the principles of investment begin to trench upon the purposes of legitimate insurance.

Endowment Policies. The Teachers Insurance and Annuity Association proposes to offer twenty-year and thirty-year endowment policies. Endowment policies represent a form of insurance in which the purpose of protection is in large measure subordinated to that of investment. Endowment policies provide for the payment of the face of the policy, not only upon the death of the insured, but also at the end of the stated term, if the insured be still living. This form of policy is extremely popular among teachers as well as among other purchasers of insurance. The notion that the insured is providing something not only for the protection of his dependents, but also something for his own protection and profit, is one that appeals to a well-nigh universal

human trait. It departs, however, from pure insurance, in two respects. The motive is no longer simply the protection of dependents. Also, such insurance is an investment rather than a means of protection against risk.

The argument generally advanced in recommending this form of insurance is that it constitutes a safe method for saving and one open to the individual of small and large means alike. A large number of teachers invest in endowment policies for the same reason that other men of limited income make such investments, influenced partly by the arguments of the life insurance agent, who generally prefers to sell an endowment policy, and partly by the very natural feeling that here is a reservoir to which he may go in case of any pressing need.

The actuary of the Teachers Insurance and Annuity Association, after the writing of policies has begun, will gladly advise any individual with respect to the fitness of the various forms of policy to the circumstances of his own need and to the scale of his individual resources.

Annuities. The annuity contract is the complement of the life insurance contract. In the annuity contract the company agrees, in return either for a single cash payment or for cash payments made over a series of years, to pay to the annuitant an agreed annual income, beginning at the time stated in the contract and continuing until death.

Annuity contracts are written also on the joint lives of two people, generally a man and his wife. The Teachers Insurance and Annuity Association will offer annuity contracts of both kinds.

While many variations of annuity contracts are found among the various companies, they fall essentially into two classes, "immediate annuities" and "deferred annuities." The first is purchased with a cash sum of money paid down to the insurance company, and provides in the contract for a fixed annuity, beginning with the date of payment, and lasting either thru a term of years or thru life. The deferred annuity is one provided by payments continuing thru a term of years—the annuity to begin at a fixed time in the future, and to be provided out of the payments and their accumulations thru interest. The Teachers Insurance and Annuity Association will provide annuity contracts under either form. It goes without saying that teachers who live upon fixed, modest salaries are rarely in a position to pay a cash sum of large amount for an annuity.

It is clear, however, that if a widespread sense of thrift and of personal responsibility is to be developed among the people of the United States, men must learn to consider not only the risk of their families due to premature death, but also their own risk of dependence in old age. A secure depositary for the savings of such men must be set up, under which the annual payments which they accumulate may be freed of overhead charges, and may enjoy at the same time the benefit of current interest rates. This service the Teachers Insurance and Annuity Association will perform for the college teachers of the country. It is a service of the highest value, and its full apprecia-

tion will not come until men realize how completely the annuity contract supplements the term insurance contract, and until they realize, further, the economic saving which is effected by paying both for insurance and annuity over that period of life when each is most needed, and each is at its minimum cost.

THE FEDERATED SUPERANNUATION SYSTEM FOR ENGLISH UNIVERSITIES

In the Eighth Annual Report there is given a careful account of the work of the commission on a superannuation system for the federated universities of Great Britain. The commission—composed of some of the ablest men in England—came to fundamental conclusions quite similar to those reached by the Trustees of the Carnegie Foundation—the contributory principle, the coöperation of the teacher and his university, the necessity for both insurance and annuity.

The possibility of a new agency to furnish insurance and annuity contracts under favorable terms was not considered. Apart from other difficulties, the number of teachers involved was too small to warrant the establishment of a new company. In addition there are companies in England which still conduct insurance with small overhead charges.

With some of these companies the commission was able to make favorable rates for insurance and for annuities. To prevent loans on policies the commission, with the consent of the insured teachers, adopted a radical measure. The policies, altho issued in the name of the teacher, remain in the custody of the university of which he is a member. The objects of assurance and protection in old age are obtained in two ways,—first, by endowment assurance policies terminating at age sixty which protect the insured during his active period of life and furnish a cash sum for purchase of a deferred annuity at sixty (retirement is compulsory at this early age), secondly by deferred annuity policies in which all premiums paid are allowed to accumulate until age sixty, at which time a definite annuity is guaranteed. In the event of death or withdrawal the premiums paid in are returned with interest.

Four societies were selected to undertake the first form of contracts, those for endowment assurance. These are the Clerical, Medical, and General Life Assurance Society, the Equitable Life Assurance Society, the Legal and General Life Assurance Society, and the United Kingdom Provident Institution. Two societies were chosen to write deferred annuity policies, the Commercial Union Assurance Society and the Legal and General Life Assurance Society.

The following examples give a fair comparison of the benefits open to the teachers under the plan of the Federated Universities and those open to American and Canadian teachers thru the proposed Teachers Insurance and Annuity Association.

The comparison cannot be made entirely accurate without going into too great detail for the reason that the endowment assurance policies of the English companies are subject to various tontine bonuses which may fall in under somewhat complicated conditions and combinations, also some distribution of the surplus of the Teachers Insurance and Annuity Association will doubtless be made which cannot at present be computed.

In the following comparisons the forms of benefit are fairly compared in two cases with the necessary reservations with regard to bonuses. The specimen case which is taken is one obtained from the official offer made to teachers in the Federated Universities, and this is compared with a similar contribution under the plan adopted by the teachers of the Foundation. In this case it is assumed that a member enters one of the English universities at age twenty-five with a salary of $1000, at age thirty-five he receives $2000, and at age forty-five and thereafter until he is sixty, $3000. The annual payment of the first ten years divided between the teacher and the college would be $100, during the next fifteen years $200, and for the final period of ten years $300,—making in all a total payment during this period of $7000. The benefits to be obtained under the two provisions are first computed in the case of death, and the results accruing from an endowment policy in the Legal and General Life Assurance Society, which apparently offers the most favorable terms, are compared with an ordinary endowment policy as offered in the Teachers Insurance and Annuity Association, maturing at age sixty.

Federated Superannuation System for English Universities		Teachers Insurance and Annuity Association	
In Case of Death		*In Case of Death*	
Between 25 and 34	(not given)	Between 25 and 34	$4,790
Between 35 and 49	$6,320	Between 35 and 49	7,970
Between 50 and 59	7,280	Between 50 and 59	9,070
Cash at Age 60		*Cash at Age 60*	
Guaranteed	$7,280	Guaranteed	$9,070
With estimated Bonus of	5,000		

In the second place a comparison is made of an annuity in the above institutions to begin at age sixty with return of capital in the event of death. In this case the comparison is made with the Commercial Union Company, which apparently offers the most favorable terms.

Federated Superannuation System for English Universities		Teachers Insurance and Annuity Association	
Non-Participating		*Guaranteed*	
Annuity of	$1,034	Annuity of	$1,200
Value at Age 60	11,160	Value at Age 60	13,240
Available in cash		Not available in cash, but in one of four forms of annuity	

If the accumulating funds realize 4½ per cent interest, the annuity will be $1300, and the value $14,457.

In order, however, to afford a comparison of the actual protection offered, it will be well to compare what an American or Canadian teacher under the same payments would obtain in the form of protection before the age of sixty-five thru insurance, and in the form of protection after sixty-five in the form of an annuity, by a combination of term insurance with a deferred annuity. In what proportions these combinations shall be made will depend on the circumstances of the teacher, but no similar combinations are possible in the system of the Federated Universities of Great Britain.

Let us assume that a man aged twenty-five entered the plan paying annual premiums as before, but placing part of the sum in term insurance and part of it in annuity payments:

At Age	*For Term Insurance*	*For Annuity*
25 to 34	$50	$50
35 to 49	75	125
50 to 59	100	200

These payments would again, if continued to age fifty-nine, amount to a total of $7000. The protection before the age of sixty to his family should be shown as follows:

At Age	*Amount of Term Insurance*	*Amount of Accumulated Annuity Deposits at 4%*	*Amount Payable in Event of Death: Deposit and Insurance*
30 to 34	$4,906	$282	$5,188
35 to 39	7,000	624	7,624
40 to 44	7,000	1,746	8,746
45 to 49	7,000	3,109	10,109
50 to 54	8,439	4,769	13,208
55 to 59	8,439	7,913	16,352

A comparison will show how much greater protection the family of the insured will have during his period of active life under this plan than under the other.

Under this arrangement at age sixty the term insurance ceases and the accumulated deposit, amounting to $11,740, may be used to purchase one of four forms of annuity. If an ordinary life annuity is selected, it will provide $1080 annually. If, however, the comparison is carried on to age sixty-five, to which age any active teacher would expect to continue his work, the advantages of the Teachers Insurance and Annuity Association become very much greater.

POLICY LOANS AND PERSONAL THRIFT

From the institution of life insurance it has been recognized that the great contribution of insurance is the development of certain fundamental qualities of character—foresight, sense of responsibility for one's dependents, and the exercise of personal thrift in order to discharge that responsibility.

How much life insurance, as now conducted, contributed to the spread of a spirit of foresight and thrift, it is impossible to say. No doubt this contribution is a very real one. There are many indications that Americans have lost to some degree the homely virtue of thrift which was characteristic of the earlier days of the republic.

One of the evidences of this tendency is found in the rapidly growing volume of policy loans. An increasing proportion of men who insure borrow upon their policies for one purpose or another, so that to an increasing number of policy-holders the purpose of insuring is defeated by using money set aside for the protection of dependents to meet some other need which may or may not be vital.

In his book on insurance issued in 1915 Professor Huebner states the matter as follows:

"Owing largely to the emphasis placed by companies and their agents upon liberal loan values as an inducement to sell insurance, a large element in the insuring public has come to regard the value of policies as little more than an accumulation of deposits to be obtained by way of surrender or a loan upon the slightest provocation. With many, borrowing on policies has become a habit. This conclusion seems warranted by a consideration of the enormous increase of such loans in recent years. Whereas the percentage of policy loans and premium notes amounted to 3.32 per cent of the total reserves of the various companies reported in the *Insurance Year Book* for the year 1888, that percentage has increased to 16.9 per cent during the year 1913. At present policy loans for 260 companies aggregate $657,994,947 as compared with a total reserve value of policies in these companies of $3,903,615,175. Between 1903–1913 the policy loans of these companies increased 313 per cent as compared with an increase of only 106 per cent in total admitted assets and 73 per cent in total insurance in force, *i.e.* policy loans increased nearly three times as fast as assets and about four and one-half times as fast as the volume of insurance. During the last four years of this decade the increase in such loans amounted to approximately $212,000,000, or over 20 per cent of the increase in admitted assets and nearly 31.4 per cent of the increase in the reserve value of policies during the same four years.

"This alarming increase in the volume of policy loans furnishes ample evidence of the careless manner in which many mortgage the monetary value of their policies for purposes of speculation or needless expenditures. To quote Mr. A. E. Childs: 'The very people who are living up to and even beyond their incomes, depending upon their insurance for the future protection of their families, are the very people who are mortgaging their insurance just as soon as the deposits are large enough to satisfy some of their more expensive desires. They either forget the original purpose for which they took the insurance or they allow their selfish desires for temporary enjoyment to outweigh their appreciation of the necessity for providing for the future.' Too frequently policy-holders effect loans on their policies simply because they are so easily obtained, never appreciating at the time the vital relation of life insurance to the beneficiary and often neglecting some other available asset which should have been selected in preference to the cash value of the policy. It should again be stated that the fundamental purpose of life insurance is protection to the family. When once acquired, therefore, it is

essential that life insurance be conserved, and in this connection it is highly important to bear in mind that the great majority of such loans are never repaid and that the policy lapses upon failure to make such repayment. As previously stated, 'Life insurance should be regarded as a sacred possession to be mortgaged only in case of extreme necessity. Borrowing on the policy depreciates its value and defeats the original purpose it was intended to serve. If not actually necessary, borrowing on a policy is an act of flagrant injustice to the beneficiary.'

"Much has been written of late to stem the tide against increasing policy loans, and many companies have attempted in recent years to check the abuse by raising the interest rate from 5 to 6 per cent and by reserving the right to defer such loans for sixty or ninety days. The difficulty involved, however, is a deeper one, namely, the failure on the part of the insuring public to understand the fundamental purpose of life insurance. It is, therefore, highly essential to impress upon the insured as well as the beneficiary the necessity of not allowing unnecessary loans to defeat the sacred purpose of life insurance in protecting the home or in providing for old age. If women—the beneficiaries in the great majority of instances—understood that a policy loan usually means a lapse, that replacement becomes possible only upon a satisfactory medical examination, and that in any case the loan for the time being impairs the amount of protection, and if they were shown their right to keep themselves posted as to what the insured is doing with his policies, there is reason to believe that the number of policy loans would be greatly reduced and limited in the main to cases clearly justifiable. In this connection, also, the agent who originally negotiated the contract could, if again placed in touch with his client at the time a loan is contemplated, render a distinct service by forcibly emphasizing to him the reasons against needless policy loans."

The extensive correspondence which the Foundation has had with teachers during the past three years touching their commitments for insurance and for other forms of protection has thrown much light also on the question of savings and investment. Teachers have placed insurance in many cases in assessment societies or weak companies. Such men are distrustful of all insurance. How much speculation has occupied the attention of teachers, it is impossible to say, but probably to a larger extent than is generally supposed.[1]

The Teachers Insurance and Annuity Association will be operated under the laws of the State of New York. Under these laws at the present time loans upon policies must be made in accordance with fixed requirements depending on the character and life of the policy. It will be the policy of the Association to discourage loans and to urge consistently that the savings set aside for the protection of wife and children and

[1] The following remarkable communication from a well-known professor in a famous institution is not to be taken as characteristic of the practice of a great number of college teachers, but as representative of a rather widespread feeling as to personal saving: "The Report speaks of the danger of the professor becoming a speculator. It has always seemed to me that the one class in the community who should be in the best position to realize profits from conservative speculation is the professorial class. They are supposed to have intelligence and their money is not supposed to be tied up in business; hence they should be able to make their purchases of securities in times of panic and their sales in boom times, thus realizing in addition to a reasonably large income return a satisfactory appreciation in the value of their securities every four or five years. The periodic movements of the security markets are just as much a part of our economic life as the periodic changes of the season are of our physical existence, and it is a great pity that a larger number of our profession are not better in tune with economic cycles. A college teacher should be able to realize eight to twelve per cent on his money instead of four and a half."

for the security of old age are devoted to a purpose too important and too sacred to be sacrificed to temporary emergencies. It is believed that a clear understanding of the advantages of the combination of a term policy with an annuity contract will go far to make clear to men of modest means how these ends may be attained. One of the advantages of the term policy is that its loan value is small. Sums of money invested in such a combination are consecrated to a definite purpose from which they cannot easily be deflected, and for this reason they present to men working upon modest salary other advantages than those of their financial merit.

THE FEDERAL WAR RISK INSURANCE PLAN

THE profound influence that the war must inevitably exercise on existing social institutions has already begun to make itself felt. Faced by the pressing needs of her soldiers and their dependents, the country has determined to inaugurate a new era in the recognition of her social obligations. Hitherto the government has followed a vicious pension principle, as unsatisfactory as it is unscientific, which has demanded annual federal appropriations of more than $170,000,000 and has provided only a pittance where the need was greatest.[1] The act which authorizes the establishment of a Bureau of War Risk Insurance marks a considerable advance in the history of pensions by incorporating those principles which recent thought and the best experience have indicated to be fundamental if the aims of social insurance are to be realized.

The experience of the federal government in pension matters has shown that the free or non-contributory pension involves a financial obligation which mounts rapidly and cannot be anticipated. The sole principles on which it is based are sentiment and philanthropy, principles which have thrown the door wide open to private bills for the extension of the gratuities and to the exploitation of political influence. Such principles are not only liable to be abused, but they fail to encourage any of those virtues, such as self-help, thrift, and self-respect, that social legislation should aim to foster. Profiting by the mistakes that have attended earlier pension legislation, the federal government determined to base the present act on the sounder principles approved by recent experiments in the field of industrial insurance and workmen's compensation. It is recognized that the best form of social insurance is that in which society or the group carries as many of the risks as may attend the work of its members, in which thrift is encouraged, and a sense of responsibility fostered, in which no attempt is made to appeal to the human desire of something for nothing, in which employer and employee coöperate to meet existing economic and social needs. For the wage-earner the great needs are adequate remuneration and protection against the hazards of life, the greatest of which are premature death and disability.

[1] See *Seventh Annual Report*, pp. 75-77; *Ninth Annual Report*, pp. 48, 49.

It is unnecessary to dilate on the conditions that the War Risk Insurance Act aims to meet. The United States has suddenly been brought into the relation of employer to several millions of men whose occupation exposes them to certain risks. The government has realized that its first task is to allay the natural anxiety that every man must feel for those dependent on him; and its second task is to furnish protection against the hazards of death and disability. In addition, the government is attempting to develop thrift and the spirit of self-help. Finally, it seeks to discourage for the future the introduction of private bills for the granting of gratuities to individuals.

The act falls into four main divisions, of which the first deals with the administrative provisions. For the protection of the wives, children, dependent parents, and brothers and sisters of the absent soldiers the act requires each soldier to allot a sum out of his pay of not less than $15 a month, to which an allowance varying with the needs of each family is added by the government, up to a maximum of $50 a month. Each soldier may of course allot any sum that he desires above the required minimum. Soldiers without any dependents may be compelled to deposit with the government a sum up to half-pay, to be returned with interest at the close of the war.

Death or disability that may lead to dependence of the family or the individual himself is met by compensation to be paid by the government. In case of death in service or as a result of injury received in line of duty, monthly payments up to a maximum of $75 will be made to the widow, children, or widowed mother. The same compensation will be paid to a soldier who is totally disabled. Where, however, the disability is not such as to prevent engagement in remunerative occupations, compensation will be graded according to a scale already recognized in a number of states under the workmen's compensation laws. Payments will be varied according to conditions existing each month. The compensation under the disability provision is carefully regulated, frequent medical examinations will be made by physicians appointed by the Bureau established under the act, and efforts will be made to furnish suitable vocational training under a provision which compels disabled soldiers to be enlisted during the period of training and to receive such pay and compensation for themselves and their dependents as they had enjoyed during active service. Death or disability must occur prior to or within one year after discharge in order that a right to compensation may be established; compensation will be paid in the case of death or disability occurring at a later period only where such a contingency was mentioned in the medical certificate granted at the time of discharge from service.

Up to this point the government has provided protection for the dependents of the soldiers during their absence on service in case of death and in case of disability. This protection is paid in part by the soldiers. In furtherance of this policy of encouraging a sense of responsibility the government has added another feature: it has enabled each soldier to purchase additional protection at rates within his means. The outbreak of the war at once increased the rates at which a soldier could be insured, and practically eliminated for him the opportunities for securing additional protection thru the ordi-

nary commercial channels. The government has recognized that it must bear the additional cost for a hazard that it itself has created. The act enables a soldier to take out without medical examination an insurance policy for not less than $1000 and not more than $10,000 at rates prevailing in peace times, the government bearing the cost of the war risk. The form of policy offered is the term insurance policy for successive terms of one year each during the period of the war, the premium varying from year to year with the age of the insured. Such policies may be converted without medical examination not later than five years after the end of the war into any other type of policy that the regulations may prescribe. The government is bearing not only the cost of the war risk, but the expenses of administration and the cost that may arise thru excess mortality and disability. The policies are based on the American Experience Table of Mortality with interest at 3½ per cent, and net rates will be charged. It is calculated that the rate in peace time for a man at the age of 29 years will be $8 per thousand, any additional cost due to the war beyond that being assumed by the government. In order to protect the insured or his beneficiaries, it is provided that policies shall be paid out in monthly instalments, altho cash, loan, paid-up and extended values, and other reasonable and practical provisions may later be considered.

Thus, by the most comprehensive measure of social insurance yet known in this country, the government has aimed to eliminate a pension system that has been both costly and demoralizing. In its place has been introduced a system of social coöperation, in which both the employer, in this case the government, and the employee, the soldier, participate to the extent of their ability in providing protection against the risk of dependence due to death or disability.

The bill is a notable effort to meet the obligations of the government to those who stand ready to give the last full measure of devotion and at the same time to avoid the scandal and the cost of a colossal war pension system.

How far the ends sought will be accomplished it is impossible at this moment to predict. The legislation has just been enacted; the machinery for carrying out its provisions is not yet formed. No one can foresee how far the soldiers drafted into the service of the country will avail themselves of those provisions which are not compulsory, such as insurance. Nor can any one predict whether the personal pension bills, which the act in express terms aims to prevent, will again reappear in Congress. Pension legislation in the past has offered such painful examples of the weakness of our Congressmen and our Presidents (with the notable exception of Grover Cleveland) that one can only hope that the legislation after the war may be upon a better plane. In any case the government has here endeavored to deal generously, with boldness, and upon sound social and economic lines. What effect this experiment may have in turning the attention of the public to the notion of insurance as a duty of government, no one can foresee.

APPENDICES TO PART II

REPORT OF THE COMMISSION ON INSURANCE AND ANNUITIES

CHARTER OF THE TEACHERS INSURANCE AND ANNUITY ASSOCIATION

A REPORT TO THE TRUSTEES OF THE CARNEGIE FOUNDATION

BY THE COMMISSION

CHOSEN TO CONSIDER A PLAN OF INSURANCE AND ANNUITIES

REPORT OF THE COMMISSION UPON THE PROPOSED PLAN OF INSURANCE AND ANNUITIES

To the Trustees of the Carnegie Foundation:

THE Trustees of the Foundation at their eleventh annual meeting on November 15, 1916, passed the following resolutions concerning the Report of the President of the Foundation, entitled "A Comprehensive Plan of Insurance and Annuities:"

Resolved: That, for the information of the trustees, the proposed new pension plan be referred for study and report to a special commission of eleven, to consist of

Six trustees, to be designated by the chairman, including the chairman and the president;

Two members to be appointed by the president of the American Association of University Professors;

One member to be appointed by the president of the Association of American Universities;

One member to be appointed by the president of the National Association of State Universities;

One member to be appointed by the president of the Association of American Colleges.

Resolved: That the executive committee have authority to arrange for the necessary expenses of such commission, and for such expert assistance and advice as it may need.

The members of the Commission as designated by the authorities named above are as follows:

From the Carnegie Foundation:	WILLIAM H. CRAWFORD
	SAMUEL B. MCCORMICK
	SIR WILLIAM PETERSON
	HENRY S. PRITCHETT
	WILLIAM F. SLOCUM
	CHARLES R. VAN HISE
From the American Association of University Professors:	WALTER W. COOK
	HENRY L. RIETZ
From the Association of American Universities:	FRANK J. GOODNOW
From the National Association of State Universities:	CLYDE A. DUNIWAY
From the Association of American Colleges:	DONALD J. COWLING

Meetings of the Commission were held in New York on the twenty-seventh, twenty-eighth, and twenty-ninth of December, 1916; in Chi-

cago on February 9, 1917, and in New York on April 27, 1917. At the first meeting all members were present except Professor Cook, whose duties as president of the Association of American Law Schools required his presence elsewhere. At the second meeting all members were present. At the third meeting all members were present except President Van Hise, who was detained by obligations which could not be deferred.

At the first session of the Commission it was voted that President William F. Slocum be invited to preside.

It was likewise voted that the Secretary of the Foundation be requested to act as secretary.

At the first session of the Commission the President of the Foundation was asked to outline the course of the Foundation from its inception, its relations to other institutions founded by Mr. Carnegie, to describe the nature of the actuarial computations which had been made, and to indicate the process by which the question of revision of the present plan of retiring allowances had arisen.

The discussion which ensued touched upon every phase of the development of the pension system, the need for contractual security to the man or woman entering the teaching profession, and the possibility of the extension of some form of old-age annuities to the general body of teachers now entering the profession.

The actuarial studies were explained at length by Mr. Samuel S. Hall, Associate Actuary of the Mutual Life Insurance Company.

These computations, the assumptions upon which they rest, and the results to which they point, may be briefly summarized as follows:

In June, 1911, there were in the colleges and universities associated with the Foundation 4453 male teachers below the age of retirement, who would be entitled to retiring allowances if they continued in teaching in an associated college to age sixty-five. The distribution of these teachers as to age is shown in the following table:

Male Teachers in Associated Institutions

Age	*Number*	*Per cent of Total*
20-24	86	1.9
25-29	575	12.9
30-34	894	20.1

35-39	904	20.3
40-44	715	16.1
45-49	550	12.4
50-54	359	8.1
55-59	211	4.7
60-64	159	3.5
Total	4453	100.0

The striking fact which this table brings out is the preponderance of young men in our colleges and universities. Forty per cent of these teachers were in their thirties. The figures indicate, moreover, that between the ages of twenty and thirty-five they are recruited rapidly, and that after thirty-five they are recruited slowly. A life table was, therefore, constructed beginning at age thirty-five.

In order to do this the following assumptions were made:

1. That the number of male teachers in these institutions at the ages 35-64 remains for a generation at precisely its present number, 2898.

2. That none of these 2898 resign—withdrawals from the group occurring only by death or by survival to the age of sixty-five.

3. That deaths occur in this group at various ages, according to the McClintock Mortality Table.

4. That as each withdrawal occurs, either by death or by reaching age sixty-five, a new member enters the group either by appointment or by survival from among the younger teachers, but in either case, at exactly thirty-five years of age.

On these assumptions these 2898 teachers a generation hence would be distributed in the various age groups as follows:

Age Period	*Present Distribution*	*Distribution in a Stationary Population*	*Excess in Present Distribution*	*Excess in Stationary Population*
35-39	904	570	334	—
40-44	715	540	175	—
45-49	550	509	41	—
50-54	359	473	—	114
55-59	211	430	—	219
60-64	159	376	—	217
Total	2898	2898	550	550

The preceding table shows not only the great preponderance of young men at present, but also how different the age distribution would be in a stationary population; that is, one in which for a generation the annual births have exactly balanced the deaths, or in this case, the accessions have exactly balanced the withdrawals.

In order to get an approximation to the probable future number of annuitants the figures for each age were readjusted to conform to these conditions in such a stationary or life table population. The following table will show the distribution according to such an assumption as compared with the present distribution:

Year of Age	*Present Distribution*	*Distribution in a Stationary Population*
35	178	116
36	200	115
37	183	114
38	189	113
39	154	112
40	161	110
41	147	109
42	158	108
43	129	107
44	120	106
45	130	105
46	121	103
47	113	102
48	93	100
49	93	99
50	68	98
51	84	96
52	78	95
53	68	93
54	61	91
55	50	90
56	48	88
57	32	86
58	32	84
59	49	82
60	50	80
61	35	78
62	30	75
63	22	73
64	22	70

Having made these assumptions with regard to distribution, assuming also that the average pension will remain as at present, assuming also that all men would retire at sixty-five, the annual cost of maintaining the pensions would ultimately amount to $1,753,073. Should, on the other hand, retirement take place at the average of sixty-nine, the other conditions remaining the same, the annual cost would amount to $1,082,725. When to these figures are added the estimated sums necessary to care for the pensions of female teachers and for the pensions of widows, the annual cost, on the assumption that retirement takes place promptly at sixty-five, would be $2,226,422; the corresponding amount assuming retirement at sixty-nine would be $1,375,060. The average age of retirement in the associated colleges during the eleven years of the Foundation's history is 67.5; the average age of retirement of the teachers outside of the associated colleges to whom pensions have been granted as individuals is 70.

The uncertainties involved in the assumptions upon which these calculations rest are very great. It is probably safe to assume that the pensions accruing from the present group of associated institutions would at the end of a generation develop an annual load somewhere between these limits, if the institutions should on the whole be maintained without growth.

The cost of the retiring allowance system in these institutions for the year ending September 30, 1916, was $570,214.23. The income of the Foundation available for its pension system was, for the same period, $800,322.84. In order, therefore, to carry the estimated load for the present group of colleges a generation hence, the annual income of the Foundation would need to be increased during that period by perhaps one million dollars, without providing for much if any growth. If we assume that this were done, it would still leave the problem of an adequate pension system for college teachers at the end of a generation exactly where it is now. That is to say, any pension system supported from a fixed income is a continually growing load which in the end will be too heavy for any fixed source of support. The Report of the President of the Foundation called attention to other weaknesses than that of this ever increasing load, but, aside from such considerations, it is clear that no solution of this matter can be regarded as permanent or

as satisfactory for the general body of teachers in the United States and Canada which involves a constantly growing obligation dependent on a limited source.

The Commission unanimously adopted the following resolutions:

Voted: Referring to the resolution of the Board of Trustees of the Carnegie Foundation, adopted in November, 1915, that "whatever plan is finally adopted will be devised with scrupulous regard to the privileges and expectations which have been created under existing rules," this Commission expresses the opinion that the extension to all teachers at present in the associated institutions of the privilege of continuing in the present system would completely meet all their reasonable expectations. The Commission assumes that the Trustees of the Carnegie Foundation will in due time announce a date after which the privileges and expectations of the present system will not be available to those newly entering upon the profession of teaching.

Voted: That the Trustees of the Carnegie Foundation be requested to give all possible consideration to the needs of the older teachers in institutions which are not yet, but may later be, associated with the Foundation.

Voted: The Commission does not know the extent to which assistance can be obtained outside the present funds of the Foundation, but it is acting on the expectation of substantial assistance in carrying a large but limited load, and with the further understanding that adequate assistance cannot be obtained to carry the ever increasing pension burden without calling upon institutions and individual teachers to bear a share.

Following the adoption of these resolutions, the Commission discussed at length the requisites of a satisfactory pension system. It was agreed that such a system to be permanent must bear some moderate ratio to the salary cost, that the load imposed must be relatively constant, and that it must secure to the individual teacher complete security combined with a large measure of freedom.

It is universally recognized that a pension system, like an insurance system, is an effort to meet by coöperation certain economic needs which many members of the existing social order are unable to satisfy as individuals. The needs themselves and the occasion for coöperation arise out of the modern industrial and vocational organization of society. Under this régime large groups of men must support their families upon annual wages or salaries limited in amount. Such limitation involves the risk of dependence, either for the head of the family, or for those depend-

ent upon him. To teachers, who as a class live upon modest salaries, but who have, nevertheless, secure tenure of place, three such risks are of primary importance: That of premature death of the teacher, with the consequent dependence of his family; that of the failure of income-earning power due to old age, or a similar failure due to disability, either of which may bring dependence both to the teacher and to his family.

After a discussion of the feasible and desirable methods by which a pension system may be employed by the teacher to defend himself and his family against the last two risks, the Commission by unanimous vote took the following action:

Voted: That the following be recommended to the Trustees of the Carnegie Foundation as the fundamental principles of a sound pension system for teachers:

I

1. The function of a pension system is to secure to the individual who participates in it protection against the risk of dependence due to old age or to disability.
2. The obligation to secure this protection for himself and for his family rests first upon the individual. This is one of the primary obligations of the existing social order. Society has done its best for the individual when it provides the machinery by which he may obtain this protection at a cost within his reasonable ability to pay.
3. Men either on salary or on wages, are, in the economic sense, employees. The employer, whether a government, a corporation, or an individual, has a direct financial interest in the establishment of some pension system which shall enable old or disabled employees to retire under satisfactory conditions. In addition, society demands to-day that the employer assume some part in the moral and social betterment of his employees. The obligation of the employer to coöperate in sustaining a pension system is primarily a financial one, and in the second place, a moral one.
4. A pension system designed for any group of industrial or vocational workers should rest upon the coöperation of employee and employer.
5. Teachers' pensions should be stipendiary in character, amounting to a fair proportion of the active pay.

II

1. In actuarial terms a pension is a deferred annuity upon the life of one or more individuals, payable upon the fulfilment of certain conditions.
2. In order that an individual participating in a pension system may be assured of his

annuity when due, one condition is indispensable: There must be set aside, year by year, the reserve necessary, with its accumulated interest, to provide the annuity at the age agreed upon. On no other conditions can the participator obtain a satisfactory contract. The man of thirty who participates in a pension plan under which he expects an annuity thirty-five or forty years in the future will take some risk of disappointment in accepting any arrangement less secure than a contractual one.

3. A pension system conducted upon the actuarial basis of setting aside, year by year, the necessary reserve is the only pension system whose cost can be accurately estimated in advance.
4. A method by which a pension is paid for in advance in annual or monthly instalments is the most practical plan which can be devised for purchasing a deferred annuity, provided that the contributions begin early in the employee's career, and provided also that the contributions paid in year by year receive the benefit of the current interest for safe investments.
5. As a matter of practical administration, a pension system should apply to a group whose members live under comparable financial and economic conditions. To attain its full purpose, participation in the pension system to the extent of an agreed minimum should form a condition of entering the service or employment the members of which are coöperating in the pension system.

President Duniway, on the part of the National Association of State Universities, brought to the attention of the Commission certain difficulties which, in his judgment, might arise in the case of some state institutions in coöperating in a plan of annuities supported by the joint contributions of the teacher and his institution. After a discussion of this matter the following resolution was adopted:

Voted: That the following memorandum, presented by President Duniway, be transmitted to the Trustees of the Carnegie Foundation for their consideration.

In state-supported institutions of higher education whose standards are in conformity with the rules of the Foundation, such institutions may be admitted to the benefit of the new system, either by the assumption of institutional responsibility for contributions equal to those which would have to be made by the members of its faculty; or by official action of the Governing Board of the institution approving the principle of institutional contribution, but necessarily postponing such institutional contribution until appropriations, from whatever source, can be had for the purpose, in conformity with law—meanwhile recommending and permitting the eligible faculty as a group, to carry the entire burden of necessary contribution for themselves and on behalf of the institution.

The Commission then took up the question, What sort of machinery is necessary in order to carry out by coöperation a sound pension system which shall afford to the participant the security of a contract?

The Commission discussed this matter from the point of view of the Foundation, of the teacher, and of the college. The scope and function of the Carnegie Foundation are set forth in its charter. It has at present an endowment whose income may be used for payment of pensions, or for other purposes which the trustees may consider desirable for the advancement of teaching. If the suggestions of this Commission are accepted, this income, for a generation or more, will be absorbed in the payment of retiring allowances to the teachers of the associated institutions. It has been proposed that as the list of associated colleges is increased the Foundation should expend an increasing amount in the payment of disability pensions. Should such pensions begin, as is customary in European countries, after ten years of service, the load coming from disability allowances might at the end of a generation absorb a large proportion of the income of the Foundation. Whatever may be deemed by its trustees at that time to be the wisest use of its funds, it is clear that it will continue to use its income along lines analogous to those on which it now works. A foundation so chartered cannot undertake annuity contracts. The moment payments are accepted from individuals, and contracts for annuities are entered into, the agency accepting such moneys and writing such contracts must be organized under the insurance laws of some state, and must be subject to the constant supervision of the insurance department with respect to all details—such as capitalization, reserves, and forms of policies. If, therefore, teachers of the next generation are to have the certainty of a contract, some machinery must be created to carry this out in a legal way. The Carnegie Foundation cannot go into the insurance or into the annuity business. It could, however, control an agency thru ownership which did both of these things.

The Commission discussed the forms of organization suited to accomplish the purposes in view. These purposes are essentially the following—to set up the machinery under which the teacher may protect himself and his family from dependence, whether by his own death, or by old age, or by disability; to furnish to the teacher the security of a con-

tract, so that the man who enters upon the accumulation of an annuity at thirty may have a contract for its fulfilment at the agreed age; to afford these forms of protection in such manner as to leave to the teacher the utmost freedom of action, and to make his migration from one institution to another easy. Finally, whatever machinery is set up to accomplish these purposes should be operated at a cost within the reasonable ability of the teacher to pay.

With these facts in view there was laid before the Commission a provisional memorandum prepared under the direction of legal counsel with the advice and assistance of the Department of Insurance of the State of New York.

The memorandum describes a single insurance and annuity agency, which, in the opinion of the Insurance Department of New York, could accomplish the purposes set forth above. It would offer to the teacher during all of his active service the protection of insurance at net cost. It would accept his contributions toward an annuity, and when the time came, provide on definite terms for such annuity as he chose to take.

It will be clear from a reading of the memorandum that any agency set up to furnish annuities would also be empowered under the law to write insurance. It will be also clear that not only the financial stability of the organization but also its service to the teacher would be increased by writing both insurance and annuity contracts. The memorandum itself will also make plain the fact that a term insurance contract combined with an annuity contract forms a complete and satisfactory protection against death and dependency in old age, and that these two contracts mutually support each other.

This memorandum was taken up by the Commission section by section and discussed from every point of view. The committee adopted a number of changes, and at the conclusion of its discussion the following resolution was passed:

Voted: That a committee, consisting of Mr. Pritchett, Mr. Rietz, and Mr. Hall, be appointed to embody in the memorandum the changes and suggestions of the committee.

This work was accomplished in a session of the committee on the morning of February 10. The following memorandum is, therefore,

recommended to the Trustees of the Carnegie Foundation as a suitable basis for the constitution of an agency competent to deal with the problem of insurance and annuities upon a contractual basis.

TEACHERS INSURANCE AND ANNUITY ASSOCIATION

This memorandum deals with the proposed form of a Teachers Insurance and Annuity Association (hereinafter called the Association) and with the form of the policies which the Association will issue. It is an abbreviation of the plan to be submitted for approval to the Superintendent of Insurance. The actual drafts of the charter and the policies have not been included, and no attempt has been made to insert any discussion of the legal questions arising in connection with the plan.

1. *Corporate Organization*

An Association will be organized under Section 70, subdivision 1, of the Insurance Law of the State of New York. The Association will have a capital of $500,000 ($400,000 in excess of the minimum required), and a surplus of $500,000 ($450,000 in excess of the minimum required), from which a deposit of $100,000 with the Superintendent of Insurance will be made by the Association, pursuant to Sections 16 and 71 of the Insurance Law.

The amount of the capital and surplus aggregating $1,000,000 will be provided thru the Carnegie Foundation for the Advancement of Teaching (hereinafter called the Foundation).

The entire capital stock will be owned by the Association. It will be provided in the charter of the Association or by an appropriate deed of trust, that the stock shall pay no dividends. The trustees will be thirteen in number, according to the requirement of the statute. They will be selected with a view to giving the Association the benefit of the best financial and actuarial judgment, together with full representation of the body of policy-holders.

The by-laws of the Association will provide for a policy-holders' committee of five, with power to make a full annual investigation of the affairs of the Association and to report their findings and recommendations to the Association and the policy-holders. The expense of this investigation and report will be borne by the Association. The Actuarial Society of America has appointed a committee to pass upon the actuarial problems of the Association, and the American Institute of Actuaries has appointed a similar committee.

The entire overhead expense of the Association will be paid from the income of the capital and surplus and the accumulations thereon. If these are not sufficient for the purpose, the deficiency will be met by the Foundation. This will make it possible

to furnish insurance at net cost and to eliminate all "loading." The business of the Association will be transacted without agents, and it is anticipated that the overhead expense will be light.

2. *Policies*

The Association will issue to college teachers two kinds of policy: (1) Policies of term insurance expiring at the age of sixty-five (or later, up to age seventy, at the option of the insured), designed to cover the risk of death prior to the assumed age of retirement. (2) Deferred annuity policies, under which the annuity payments will begin at age sixty-five (or later, at the option of the annuitant). The annuity policies are designed to provide against loss of income by the teacher and his wife due to retirement. Either insurance or annuity may be taken separately. Taken together the two policies afford protection against the two major risks of the teacher's career. The risk of disability will not at present be dealt with by the Association, but will be provided for by the Carnegie Foundation.

Term Insurance

Policies of term insurance expiring at age sixty-five (or later, up to age seventy, at the option of the insured) will be issued to individual teachers upon medical examination equivalent to "certification," or will be issued to all or substantially all of the teachers of a college applying as a group without medical examination. The policies issued upon medical examination will be limited to a maximum of $25,000 for each teacher, and policies issued to members of groups without medical examination will be limited to a maximum of $10,000 for each teacher. The premiums will be computed on the basis of the American Experience Table and 3½ per cent interest. There is every reason to believe that the Association will realize a higher rate of interest. The Association will not contract to give the insured under the term policies the advantage of profits accruing to it on account of this higher rate. It will, however, provide in its by-laws for a distribution of profits at the end of five-year periods in case the profits are in excess of what actuaries regard as necessary as addition to surplus. This return will be made in cash or in the form of a paid-up addition to the annuity (more fully described below). The offering of term insurance will be flexible, so that varying amounts may be carried at different times, if this is desired.

Deferred Annuity Policies

The Association will issue to college teachers deferred annuity policies in substantially the following form: The annuitant, or his college, or the two together, will contract to pay to the Association "level" premiums of a certain amount each year until the annuitant reaches his sixty-fifth year. The Association will contract to receive

these premiums and accumulate them with compound interest at such rate as the Association can procure upon them. The Association will contract that if the annuitant dies prior to age sixty-five, and while still a teacher, it will return to his executor or administrator the premiums which have been paid to the Association by the annuitant alone (or by the annuitant and his college), with compound interest at such rate as the Association has received on such premiums, but in no case exceeding $4\frac{1}{2}$ per cent. The Association will contract that if the annuitant retires from the profession of teaching prior to age sixty-five, it will return to the annuitant the premiums which have been paid to the Association by the annuitant alone (or by the annuitant and his college), prior to his retirement, with compound interest at the rate of $3\frac{1}{2}$ per cent; or, if he so desires, after having been a contributor for seven years, he may continue the annuity at his own expense. Should an annuitant transfer from one institution to another, there will be credited to him all of his contributions and those of his college on his account. The Association will further contract that if the annuitant reaches the age of sixty-five years without retiring, the Association will consider the entire fund from premiums on his annuity, accumulated with interest as explained above, as a single premium offered to the Association for the purchase of an annuity, computed on the basis of McClintock's Table and 4 per cent interest. In return for this premium the Association will pay to the annuitant an equivalent annuity beginning at age sixty-five, or such later age as the annuitant may elect. The annuitant may, at any time before the payment of the annuity begins, elect to have the annuity take any one of the four following forms:

(1) An annuity of a certain yearly amount payable monthly to the annuitant during his life with no return to his estate after his death. (2) An annuity of a certain yearly amount payable monthly to the annuitant during his life with a guarantee that if the annuitant dies before he has received annuity payments equal in the aggregate to the sum paid for the purchase of the annuity, the Association will continue to pay the annuity to the executor, or to the administrator of the annuitant, until the total of all the payments made under the annuity is equal in the aggregate to the sum paid for the purchase of the annuity, or will make with the said executor or administrator an equivalent cash settlement properly discounted for the anticipation of payment. (3) An annuity of a certain yearly amount payable monthly to the annuitant teacher during his life, and if the wife of the annuitant teacher survives him, an annuity to the wife of half of the said amount during the remainder of her life. This form involves no payment to the estate of either the teacher or his wife. (4) An annuity of a certain yearly amount payable monthly to the annuitant teacher during his life, and, if the wife of the annuitant teacher survives him, an annuity to the wife of one-half the said amount during the remainder of her life, with a guarantee that if the annuitant teacher and his wife both die before they have received annuity payments equal in the aggregate to the sum paid for the purchase of the annuity, the Association will continue to pay the annuity to the executor or administrator of the

annuitant teacher if he survives his wife, or to the executor or administrator of the wife if she survives the annuitant teacher, until the total of all the payments made under the annuity is equal in the aggregate to the sum paid for the purchase of the annuity, or the Association will make with the said executor or administrator an equivalent cash settlement properly discounted for the anticipation of payments.

Owing to the reserve provisions of the New York Insurance Law, the Association will not contract that the annuitant will receive an annuity of any stated amount for the premium which he pays. Nor will it contract to compound his payments at any stated rate of interest, but only at such rate of interest as it can procure. Nevertheless, the Foundation will guarantee to the Association the receipt of at least $4\frac{1}{2}$ per cent on the deferred annuity premiums to the age of retirement, and the policies will be accompanied by non-contractual statements setting forth this fact and showing the amount of annuity which can be procured in each of the four forms set forth above, by a given annual payment, compounded at $4\frac{1}{2}$ per cent.

The principal business of the Association will be the issuance of term insurance and annuity policies of the kinds described above, with suitable flexibility, but it will, by its charter, be authorized to issue all the types of annuities and insurance upon life and health described in Section 70, subdivision 1, of the Insurance Law, including ordinary life and endowment policies.

In the practical establishment of such an agency subject to the insurance laws of the State of New York, various questions arise of great importance to the teachers, to their colleges, and to the Foundation. While the Commission does not undertake to offer suggestions with respect to all these questions, the following votes were adopted in the belief that the opinion of this Commission would be welcome to the Trustees of the Foundation in determining the settlement of some of them.

Voted: That in considering the terms of the memorandum of President Duniway proposed at the fifth session of the Commission on December 29, and which has been referred to the Trustees of the Foundation, the Commission would inquire whether the questions raised in this memorandum may not apply to endowed institutions as well as to tax-supported institutions.

Voted: It is recommended that the method by which institutions shall enter into participation in the proposed plan of insurance and annuities shall be by means of joint payment of premiums for annuities on the part of both the institution and the teacher. It is recognized, however, that some variations of this arrangement may be necessary to meet the exigencies of some colleges and universities.

Voted: It is the opinion of this Commission that the best interests of the teachers will be promoted if all members of each faculty contribute toward annuities, but that the decision in this matter should be left to the governing bodies of the various institutions. Participation in the insurance feature of the plan should be voluntary.

Voted: It is the judgment of this Commission that men migrating from institutions that are now associated with the Foundation should take with them their present expectations concerning retirement in case of transferring to institutions that are not now, but may later, become so associated.

Voted: It is the opinion of this Commission that in presenting the plan of insurance in detailed form, a number of variations in the arrangements for insurance be indicated so that a teacher may choose his insurance to terminate at such time, and in such combination with his annuity, as may best suit his individual circumstances.

Voted: With respect to disability pensions, the basis of these pensions or the definition of disability may vary all the way from "total and permanent" disability as understood by insurance companies that have a disability clause in their policies, to a much more liberal definition under which a man is regarded as disabled when he is physically or mentally disqualified to continue the profession of teaching. The Commission thinks that in devising a permanent pension system, the first thing to be aimed at is sufficiency of funds; and the definition of disability should be made with due regard to the funds available for the purpose of paying disability pensions. It is the sense of the Commission that as liberal definition as seems to be consistent with the funds available for this purpose is desirable.

Voted: The organization and operation of the Teachers Insurance and Annuity Association will be most effective if carried out as a stock company, but the ownership of the stock should be equally divided between the Carnegie Foundation and five trustees, three chosen by the American Association of University Professors, one by the Association of American Colleges, and one by the Canadian Universities. These stockholders shall choose a self-perpetuating board of thirteen trustees and transfer the stock to them.

Voted: It is the sense of the Commission that the facilities of the Teachers Insurance and Annuity Association should be open to teachers in all colleges, regardless of sectarian control or similar considerations.

Voted: All teachers having expectations under the present plan should be eligible to participation in such measure as they may deem expedient in the new plan.

Since the matters referred to this Commission seem to have been covered by the various resolutions and memoranda adopted at its different sessions, and since these taken together embrace such recommendations with respect to the plan of insurance and annuities as the Commission

feels ready to make, the Commission considers that the work to which it had been invited is completed. It was, therefore

Voted: This Commission adopts as a whole and recommends to the Trustees of the Carnegie Foundation the plan of insurance and annuities set forth in the preceding resolutions and memoranda.

(*Signed*) WALTER W. COOK
DONALD J. COWLING
WILLIAM H. CRAWFORD
CLYDE A. DUNIWAY
FRANK J. GOODNOW
SAMUEL B. MCCORMICK
WILLIAM PETERSON
HENRY S. PRITCHETT
HENRY L. RIETZ
WILLIAM F. SLOCUM
CHARLES R. VAN HISE

April 27, 1917.

√ # PROPOSED CHARTER OF THE TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA

WE, the undersigned, being natural persons of full age and at least two-thirds of us citizens of the United States, and at least one of us a resident of the State of New York, do hereby certify that we intend to form a corporation for the purposes named in Subdivision 1 of Section 70 of the Insurance Law of the State of New York. The following is a copy of the Charter which we propose to adopt:

CHARTER

TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA

Article One

This corporation shall be named "Teachers Insurance and Annuity Association of America."

Article Two

The place where the corporation is to be located and have its principal office for the transaction of business is the City of New York, State of New York.

Article Three

The kind of insurance to be undertaken is upon the lives or the health of persons and every insurance appertaining thereto, and to grant, purchase or dispose of annuities, such kind of insurance being authorized under Subdivision 1 of Section 70 of the Insurance Law of the State of New York.

Article Four

The corporate powers of the corporation shall be vested in and exercised by a board of trustees, and by such officers and agents as the board of trustees may from time to time appoint.

Article Five

Section 1. The board of trustees shall consist of sixteen persons; four trustees shall be elected in each year, and the term of office of each trustee, except as provided in Section 2 of this Article, shall be four years

or until his successor shall be chosen. A majority of the trustees shall be citizens and residents of the State of New York. A trustee need not be a stockholder. The number of trustees shall in no case be less than the minimum number of incorporators required to organize such a corporation.

Section 2. The names and post-office addresses of the first board of trustees and the term of office of each are as follows:

To serve until the annual election of trustees in the year 1918

NAMES	POST-OFFICE ADDRESSES
Frank A. Vanderlip	Scarborough, New York
Henry S. Pritchett	22 East 91st Street, New York City
Walker D. Hines	122 East 70th Street, New York City
William S. Learned	260 Rich Avenue, Mt. Vernon, New York

To serve until the annual election of trustees in the year 1919

Thomas W. Lamont	J. P. Morgan & Co., New York City
Samuel S. Hall	17 Upper Montclair Ave., Montclair, N. J.
Frederick A. Goetze	455 West 141st Street, New York City
Walter Vaughan	McGill University, Montreal, Canada

To serve until the annual election of trustees in the year 1920

Frederick C. Ferry	Hamilton College, Clinton, New York
Allen B. Forbes	Harris, Forbes & Co., New York City
George J. Baldwin	120 Broadway, New York City
Frank W. Nicolson	Wesleyan University, Middletown, Conn.

To serve until the annual election of trustees in the year 1921

Charles V. Rich	National City Bank, New York City
Michael A. Mackenzie	Toronto University, Toronto, Canada
Robert A. Franks	135 East 66th Street, New York City
Alfred Z. Reed	27 West 44th Street, New York City

In case any of the above named persons shall decline to serve, or prove to be ineligible, the vacancy or vacancies may be filled by the remaining trustees.

Section 3. An annual meeting of stockholders for the election of trustees shall be held on the Tuesday before the third Wednesday in November of each year at the principal office of the corporation in the City

of New York. Any vacancy in the board of trustees occurring in the intervals between the annual meetings of stockholders may be filled for the unexpired portion of such trustee's term by the board of trustees in such manner as the by-laws of the corporation may provide.

Section 4. The board of trustees shall have power to adopt by-laws fixing the number of trustees, not less than six, which shall constitute a quorum for the transaction of business, providing for the appointment of an executive committee, not less than three in number, to exercise all the powers of the trustees in the intervals between meetings of the board of trustees, and prescribing such other rules and regulations, not inconsistent with law or this charter, for the conduct of the affairs of the corporation as may be deemed expedient, and such by-laws may be amended or repealed by them at pleasure. The board of trustees shall also have all other powers usually vested in boards of directors of life insurance companies not inconsistent with law or this charter, and may at any time accept or exercise any and all additional powers and privileges which may be conferred upon this corporation, or upon life insurance companies in general.

Article Six

The board of trustees at their first stated meeting, after each annual meeting of stockholders, shall elect a president, a vice-president, a secretary, and a treasurer; they may elect such other officers as they may deem requisite. All the officers shall hold office during the pleasure of the board of trustees. The board of trustees may appoint at any time a president and vice-president or other officers to act temporarily in place of officers of the corporation who may be absent, incapacitated, or for any other reason unable to act. The president and vice-president shall be members of the board of trustees, but no other officer need be a trustee.

Article Seven

The capital of the corporation shall be Five Hundred Thousand Dollars ($500,000), which shall be divided into five hundred (500) shares of One Thousand Dollars ($1000) each.

Article Eight

The purpose of the corporation is to provide insurance and annuities for teachers and other persons employed by colleges, by universities, or by institutions engaged primarily in educational or research work: to offer policies of a character best adapted to the needs of such persons on terms as advantageous to its policy-holders as shall be practicable; and to conduct its business without profit to the corporation or to its stockholders; and the corporation shall transact its business exclusively upon a non-mutual basis and shall issue only non-participating policies.

Article Nine

The fiscal year of the corporation shall commence on the first day of January and shall end on the thirty-first day of December.

IN WITNESS WHEREOF, we, the subscribing incorporators, have hereunto subscribed our names, this first day of February, A.D. 1918.

Elihu Root
Nicholas Murray Butler
Arthur Twining Hadley
Jacob Gould Schurman
Alex. C. Humphreys
Charles P. Stone
John Bassett Moore
Robert Weeks de Forest
George Woodward Wickersham
Newcomb Carlton
Edward Robinson
George Foster Peabody
Henry S. Pritchett

PART III

PENSIONS

CURRENT PENSION DEVELOPMENTS

The present year marks a turning-point in the history of teachers' pensions. The first stage, the hit-or-miss period, in this development seems to be coming to an end in the face of the acknowledged failure of many systems to meet their obligations. Not only is the conviction becoming firmly established that the teacher as a public servant with inadequate financial opportunities deserves protection in old age, but experience is gradually driving home the lesson that such benefits are futile unless they are guaranteed on the basis of principles that secure stability of the funds without imposing too large a burden on the teacher or on the public. These principles, which are derived from a study of current thought and tendencies in pensions, confirmed by experience and the contributions of actuarial science, are discussed in another section. The present section will consider a number of pension plans that incorporate these principles and have been under discussion in a number of states and cities during the past year. This remarkable development in the history of pensions was inaugurated in 1913 by Massachusetts. During the last few years a number of new systems have copied the Massachusetts plan with minor changes. But the experience of this plan, tho brief, has been illuminating and has been employed as the foundation for further improvements as suggested by the wishes of teachers, the reaction of the public as taxpayers, and the reports of the actuaries. But however salutary the influence of the Massachusetts plan has been on such proposals as those in Colorado, Connecticut, Oregon, Pennsylvania, District of Columbia, New York City, and Pittsburgh, the introduction of such plans as those of Iowa, Kansas, Nebraska, Washington, West Virginia, and Wyoming, and the amended plans in Utah and Wisconsin, which are obviously defective, indicates that much educational work still remains to be done in the field of pensions. The proposals in Colorado, Connecticut, Oregon, Pennsylvania, New York City, and Pittsburgh, incorporating the best thought concerning pensions in recent years, are to be welcomed because they will turn the attention of teachers and legislators throughout the country to sounder thought on the subject, even tho only a few (Connecticut, Pennsylvania, and New York City) succeeded in passing.

Of these plans, those of Connecticut and Oregon were based on the Massachusetts retirement system with but a few minor changes. The general principles of this plan are well known. They involve the accumulation by the contributions of teachers of a fund which at the time of retirement is to be used to purchase an annuity to be supplemented by a pension of an equal amount paid out of state appropriations. The expenses of administration are borne by a separate fund without any drain on the money due to the teacher. Instead of pooling all the contributions, a method by which the younger teachers pay the pensions of the older teachers only to find the fund exhausted when their turn for retirement arrives, individual accounts are to be kept for each teacher. The contributions of the teachers are actuarially calculated. Under the Connecticut bill the contributions are to be not less than $25 nor more than $100

a year; in Oregon the limits were $35 and $100 a year. Within these limits the retirement boards in each case were to have the power to make such variations as might be suggested by an investigation into the funds by actuaries. Thirty payments were required in both cases, and annuities could be purchased only up to a maximum of $500. The pensions were to be paid out of state appropriations, in other words, on the cash disbursement plan. Teachers were to retire at the age of sixty either on a full annuity or on a partial annuity with a continuance of payments after their deaths to designated beneficiaries. Other options were also contemplated. The accrued liabilities, that is, the payments due to teachers already in service at the time of the introduction of the plan and unable to make sufficient contributions to purchase their own annuities, were to be taken care of by the state fund, and a minimum allowance of $300 was to be assured to each teacher. In the case of withdrawal for any cause whatever, the teachers in Connecticut will receive a refund of the total sum accumulated to their credit, while in Oregon the refund was to consist of the total contributions with interest at 3 per cent. After a certain period of service such teachers were given the option of receiving the refund in the form of annuities. Of these two bills which have the merit of aiming at actuarial soundness, that of Connecticut has been passed and goes into effect this year. It is unfortunate that a retroactive feature was introduced into the bill by which teachers seventy years of age who had already left the service owing to disability may become eligible to a pension amounting to not less than $300 a year on payment of a sum equal to 5 per cent of their last annual salary. The experience of the past few years has suggested certain improvements on the Connecticut plan, as, for example, the postponement of the age of voluntary retirement, the reduction of the heavy burden on the state treasury by the employment of the reserve plan, the refunding of contributions with interest at 4 per cent, and the introduction of a number of additional options. It is significant, however, that the Massachusetts plan has commended itself sufficiently to be employed as a model. During the past year it has been adopted in Erie, Pennsylvania, and was recommended as a counter-proposal to the defective bill of the Iowa State Teachers' Association, which is considered below.

In general the other plans that have been considered in Colorado, Pennsylvania, District of Columbia, New York City, and Pittsburgh were based in outline on the Massachusetts system. The schemes proposed in Colorado and Pittsburgh fall into one group, those of Pennsylvania, New York City, and the District of Columbia into another. The distinction between the two groups is that in the first a definite retiring allowance was provided—$600 in Colorado and $500 in Pittsburgh; while in the second the retiring allowance represented a percentage of the teachers' salaries—50 per cent of final salary in Pennsylvania, 50 per cent of average salary during the last ten years of service in New York City, and in the District of Columbia 1 per cent of the aggregate annual basic salary for each year of service. The first plan makes for simplicity; in the second the amount of the future pensions becomes uncertain because

the trend of salaries over a period of thirty or forty years cannot be calculated with any great degree of definiteness. In each case the assessments on teachers' salaries vary with the ages of the contributors and represent the annual premium required to be set aside in order to purchase the annuities provided. In the Colorado plan the premiums rose from $32.79 per year at the age of twenty, to $170.30 per year at the age of forty-six; in Pittsburgh the proposed annual premiums were from $16.50 a year at the age of twenty to $114.50 at the age of forty; the rates in Pennsylvania and New York City have not yet been determined, while in the District of Columbia the amount of the deductions was to be determined each year. It is gradually becoming evident that a sound and stable pension system must be based on actuarially derived premiums. No other system is compatible with the principle that individual accounts must be kept, and that what a teacher contributes must always belong to him and cannot be diverted to pay the pensions of others. The systems are of course expensive for the older teachers, but each of the plans makes provision for reducing the cost to the older teachers in service when the systems come into force. Thus in the Colorado plan teachers over the age of forty-six were not included; in Pittsburgh it was intended that only a flat rate of $52 a year should be required of teachers above the age of forty, the city making appropriations to meet the difference between this sum and the actuarial assessments proper for each age; similar provisions to reduce the prohibitive amounts of the contributions are made in Pennsylvania and New York City, and in the District of Columbia the annual assessments were limited to 8 per cent of the basic salary. Another fact, vital to the continued existence of a pension fund, is accordingly recognized in these provisions, namely, that the accrued liabilities impose a heavy burden on any fund and must be specially provided for, if participation in a system is not to become prohibitive for teachers already in service at the time of its establishment.

A new principle that is to be noted in all the new proposals is the provision of options that may be chosen by teachers in place of the full retiring allowance. Based on the principle that what a teacher contributes belongs to him, provision is made to return the remainder to the estate in the case of a retired teacher who dies before receiving the total amount to his credit in the form of an annuity. In addition Colorado would have permitted the teacher at the time of retirement to withdraw the total amount accumulated by his contributions and to receive from the state a pension of $300; in Pennsylvania and New York City teachers on retirement have the option of accepting only part of the allowance to which they are entitled and of having the amounts remaining to their credit continued in the form of an annuity to some designated beneficiary.

Since a teacher's contributions remain his property, all the schemes provided for the return of these with interest at 3 or 4 per cent in the case of withdrawal for any cause — resignation, dismissal, or death. New York City adds a death benefit of one-half of the final annual salary to a deceased teacher's dependents.

There is less uniformity in determining the age of retirement. From the principle that premiums must be actuarially derived it follows that the early retirement hitherto provided can no longer be permitted unless teachers are prepared to pay the high contributions that would be required. There appears to be unanimity in the view that retirement before the age of sixty should not be encouraged. Thus Colorado provided for voluntary retirement at the age of sixty and compulsory retirement at sixty-five; Pennsylvania and the District of Columbia made retirement optional at sixty-two and compulsory at seventy; while New York City and Pittsburgh fixed the age of retirement at sixty-five. Only New York City is prepared to retire teachers on the basis of thirty-five years of service alone. Pennsylvania, the District of Columbia, and New York encourage continuity of service by basing the whole or part of the pension on the number of years of service; Colorado required a minimum of fifteen years of service for retirement. Late entrance into service is, of course, discouraged automatically by the increase of contributions with the increase of age.

Of the five systems, Colorado, Pennsylvania, New York City, and Pittsburgh planned to meet the obligations incurred by their share in the retiring allowances on the reserve basis; the District of Columbia alone intended to pay its share by annual appropriations. The Colorado plan contained the provision that money reserved to meet the obligations of teachers who withdraw from service should be used to reduce the amounts to be set aside in future years; in Pittsburgh all amounts contributed from public sources were to be retained in the fund and not withdrawn. The expenses of administration were in all cases to be met by special appropriations without reducing the fund set aside for retiring allowances.

Disability protection was provided in all the schemes, but without any agreement on its administration. The Colorado plan retired teachers on the ground of disability at the age of fifty on an allowance consisting of a pension from the state equal to the annuity purchasable with the accumulated contributions. The District of Columbia provided for the retirement of disabled teachers at the age of fifty-two on an annuity purchased with the contributions and a pension of $6 a year for each year of service. Pittsburgh provided disability protection from the start on allowances increasing with the length of service up to $300 a year. Pennsylvania and New York City require ten years of service before granting disability allowances or annuities purchased with accumulated contributions and pensions paid out of public funds. In Pennsylvania teachers retired for disability may engage in gainful occupation, but their allowances are to be reduced by the amount earned in this way. A medical board of three members is to be appointed in New York City to pass on all questions affecting retirement for disability and to conduct periodical examinations of teachers so retired.

The present movement in the direction of sound systems is best indicated by the fact that actuaries have been engaged to draft the plans so far discussed. Stability, however, requires not only careful planning at the start, but constant supervision and revaluation. The Colorado, Pennsylvania, and New York City plans require the

employment of an actuary, while the District of Columbia scheme provided for triennial valuations by an actuary. The keeping of accurate records and data that are of importance for periodical actuarial investigations was emphasized in all the plans.

It is not claimed for any one of these plans that perfection has been reached. The first requisite of a pension scheme, actuarial soundness, is attained in all. The fact that beyond this basic principle no two plans are exactly alike in all details indicates the possibility of future improvements by an interchange of experiences under different conditions. Improvements may be suggested on the basis of the accurate records which will be kept. The most marked tendency in the new pension movement is the desire to eliminate guesswork; so far as can be foretold on the basis of data at present accessible, the teacher in the proposed pension systems will be practically assured of protection in old age at a cost that is reasonable to himself and to the public.

However promising the outlook may be, it must be admitted that much thought and study are still necessary on the subject, and considerable work is yet required to convince teachers that their own interests demand that pensions must be based on sound and scientific principles rather than on sentiment or a desire to secure the maximum of protection with the minimum of sacrifice. As soon as the teachers recognize how great a burden the unsound pension systems attempt to lay on the public as taxpayers, they must realize the force of arguments in favor of pension systems that are not only generous to themselves but at the same time fair to the public. That the movement in this direction has already begun has been shown in a previous section. How much educational work remains to be done is indicated by the proposals contained in the plans for pensioning teachers in Iowa, Kansas, Nebraska, Washington, West Virginia, and Wyoming, and in the amendment of existing plans in Utah and Wisconsin.

The bill proposed by the Iowa State Teachers' Association, discussed in the Eleventh Annual Report, failed to secure enactment. It is to be hoped that the two recent failures of the Association will turn its attention to a more careful consideration of sounder pension advice, which several of its members and some of the legislators of the state are fully competent to offer.

The Kansas State Teachers' Association bears the responsibility of proposing a pension bill, which failed to pass the legislature, to retire teachers after twenty-five years of service, voluntarily at the age of fifty-five and compulsorily at the age of seventy. An assessment of one per cent a year was to be made on teachers' salaries, the total assessments to be equal to the amount of the pension for the first year. A pension of $15 for each year of service was promised, so that a teacher who retired after twenty-five years of service would have received a pension of $375 a year, tho his total contributions were equal to this sum for one year only. The state was by appropriations to produce each year a sum equal to the teachers' contributions. Supplementary sources of income were to be found by donations, gifts, and legacies, interest on investments, and the questionable retention of the contributions of teachers withdrawing from the

service. A pension of $375 beginning at the age of sixty, based on the American Table of Mortality (3½ per cent), requires an accumulated fund of nearly $3000, and yet all that the teacher was required to contribute towards this sum was $375. The remainder to be provided from the state and other sources would have been even greater than the difference here shown. No attempt had apparently been made to study the prevailing tendencies in the development of pensions or to obtain an actuarial estimate of the cost of the plan.

The Nebraska legislature rejected this year a teachers' retirement bill which, while it had the merit of being generous to the teacher, would have placed a heavy burden on the public or would have failed to secure stability. The bill was actuarially and financially unsound. Teachers could have retired after twenty-five years of service irrespective of age, and conceivably, therefore, at the age of forty-five or upwards. Altho retirement was permitted after twenty-five years of service and the payment of total contributions by the teacher of $525, teachers who would have continued in service for ten years more were not relieved from further contributions. Altho the total contributions in such cases would have been $725, all teachers were to be retired on the same allowance of $500 a year, irrespective of the amount of their contributions, and altho the average salary of teachers in the state in 1913–14 was only $524.62. A teacher retiring at the age of fifty after twenty-five years of service could according to the expectation of life at that age, 20.91 years, draw from the fund nearly $10,500, and at the age of fifty-five about $8700. To pay a pension of $500 at the age of sixty there should be on hand, according to the American Table of Mortality (3½ per cent), the sum of $5330. Much larger sums would be required to pay annuities commencing at earlier ages. The difference between the sums contributed by the teacher and the amount necessary to meet the obligations was to have been made up by a tax levy of one-tenth of a mill and from such uncertain sources as donations, gifts, legacies, and so on, and by the unjustifiable retention of all contributions of teachers who withdrew from the service in the first five years of their service and of one-half of the contributions in the case of withdrawal thereafter. The bill permitted the board of trustees of the fund to reduce annuities ratably "whenever in the judgment of the board, the condition of the fund shall require such reduction."

In spite of failure on a public referendum of a pension bill passed by the legislature in 1915, the teachers of the state of Washington again put forward a measure based on the same principles, and succeeded in securing its passage with a referendum clause attached. The provisions of the bill may be accepted on the petition of a majority of the teachers in school districts of the first class. This failure to make the system state-wide may tend to operate against the free migration of teachers in the state. The pension fund is to be accumulated by teachers' contributions of $12 a year for the first ten years of service, $24 a year during the next ten years, and $36 a year for the following ten years, the state expecting from the teacher a total of only $720. This is to be supplemented, if necessary, by a tax levy of one-fifth of a mill. Teachers may

retire without any age limitation after thirty years of service on the full pension of $480 a year, and women teachers may retire after twenty-five years of service on a proportionate pension. Without any restrictions as to age it would be possible for a teacher to retire at the age of fifty or fifty-five, or even earlier. In other words, the plan proposes in return for $720 to pay a pension of $480 a year. At the ages of fifty or fifty-five the expectation of life is from 20.91 years to 17.40 years. Thus in return for $720 a teacher might conceivably draw $10,032.80 or $8332. According to the American Table of Mortality ($3\frac{1}{2}$ per cent), $720 at the age of sixty could purchase an annuity of only about $67, or about one-seventh of the amount proposed in the bill. A pension of $480 a year beginning at the age of sixty would require annual contributions by or on behalf of each teacher towards a sum of $5117, which would require for its accumulation annual contributions of more than $100. At ages fifty or fifty-five the annuities purchasable for $720 would be much less. It is obvious under these circumstances that a great deficit would be created before very long. The burden is excessively increased by a provision to pay allowances to teachers who have already left the service on account of incapacity and to teachers who become disabled after ten years of service. It is highly problematical whether the tax levy would be adequate or whether any public authority would undertake the responsibility of meeting such a burden. The cost would not be greatly reduced by the unjustifiable proposal to retain half of the contributions of teachers who for any reason withdraw from the service. The presence of a provision to permit pro-rating when there are not sufficient funds to pay the annuities indicates a failure to make such actuarial calculations as would secure stability.

Under the bill, proposed but finally defeated, for the pensioning of West Virginia teachers who might voluntarily become members of the teachers' retirement association, provision was made for their retirement at the age of sixty with pensions at different rates varying with the length of their service. Thus, teachers retiring at the age mentioned after thirty-five years of service were to receive pensions of $250 a year, after thirty years of service $200 a year, and after twenty-five years of service $150 a year. To pay these pensions, the proposal was originally made but was early cut out by the legislature that state appropriations, with a minimum of $5000, be made from the general school fund; receipts from donations, gifts, and so on were to be accumulated; the fund was to benefit by the retention of one-fourth of a teacher's contributions and the accumulated interest thereon in the event of withdrawal from service for any cause; and the teachers were to contribute 1 to 2 per cent of their salaries according to length of service. Taking the average salary of teachers in West Virginia in 1912–13 as $337, a teacher might be expected in thirty-five years to contribute about $183, in return for which the state would pay a pension of $250 a year. According to the American Table of Mortality ($3\frac{1}{2}$ per cent) the sum of $183 at the age of sixty will purchase an annuity of approximately $17; in other words, the state would have to provide the difference of about $233 annually for each retired teacher.

At the age of sixty the expectation of life is about fourteen years; a teacher may therefore be expected, under the circumstances, to draw from the state the total sum of $3500, toward which she will have contributed the sum of $183! Instead of $183 there should have been accumulated the sum of $2665 to pay a pension of $250 as calculated on the basis mentioned above. The burden of the state would, of course, be greater in the case of teachers who retire after twenty-five or thirty years of service. In the original proposal to pay the pension appropriation out of the general school fund, there was involved the danger that the schools would suffer from the great demands made on the fund by pensions. The right was reserved to the state, however, to reduce the pensions ratably whenever "the condition of the fund shall require such reduction."

The only free pension plan of the year was proposed, unsuccessfully, in Wyoming. Men were to be retired at the age of sixty and women at the age of fifty-five after twenty-five years of service in the state or a total of thirty years of service, of which fifteen must have been in the state. Disability provisions were also provided after these periods of service but without any age limit. The pension promised was $600 a year, altho the average salary of teachers in the state in 1913–14 was only $434.72. It is unnecessary at this stage to enter upon a discussion of the defects of a free pension system. The most valid argument against such a system is the uncertainty of the ultimate liabilities and the absence of protection before the retirement age is reached. Pensions were to be paid in each county out of the general county fund—a provision which involved the risk of an ultimate reduction of the pensions or the crippling of some other public activity, probably the schools.

In Utah the state pension system which was established in 1913 has this year been abolished, but the permissive powers to establish pension systems granted in that year to cities of the first class have been extended to cities of the second class. Pension funds may be established on the petition of a majority of the teachers in these cities, and once these are established, membership is compulsory on all teachers by virtue of their employment. Not only is this measure contrary to the present tendency to establish state systems of retirement, but it perpetuates the unsound conditions already prevailing. For a total maximum contribution of $360 teachers who reach the age of sixty or are disabled may retire after thirty years of service, fifteen of which must be in the city concerned, on a pension with a maximum of $600. In addition to teachers' contributions the fund is to be constituted by deductions for absences, and donations, legacies, and bequests.

The act of 1917, which seeks to amend the acts of 1909 and 1911 permitting the establishment of teachers' pension funds in cities of the first class in Wisconsin, will probably result in making an already unsound system more unsound. Without adding new financial sources the act increases the bases of retirement. The funds are to consist only of an endowment fund made up of specific gifts and legacies, a reserve fund constituted by teachers' contributions and unexpended income from any sources, and a general fund provided from gifts and legacies, interest, and moneys transferred for

immediate use from the reserve fund; deficits are to be made up by grants from the general school fund. Teachers will be required to make a total contribution of $500. In spite of the apparent inadequacy of these funds, teachers may be retired on the basis of disability after fifteen years of service, or after thirty-five years of service, or after twenty-five years of service on reaching the age of sixty-five. In the last two cases, altho the actuarial cost is distinctly different for each privilege, the retiring allowance will be $400 a year, and this defect is to be still further exaggerated by permitting teachers who have had forty years of service to retire on allowances of $500 in return for a total contribution of $500. Financiering of this kind must lead sooner or later to a recognition that a bad system cannot be improved by still worse patchwork, and by that time Wisconsin must surely be prepared to profit by the pension experience of the states that have been more progressive in these matters.

It will be noticed that all the plans discussed in this section are open to the same objections. They attempt to retire teachers after too short a period of service — usually twenty-five years. This means that teachers could retire as early as the age of forty-five, to spend half of their adult lives as members of the pension roll. The suitable age for retiring teachers has not yet been determined, but the retirement of teachers much before the age of sixty involves the loss of teachers at a time when they can give very efficient service. A pension should not be regarded merely as a reward for continuity of service, but as a protection against loss of salary in old age, granted in recognition of long service and to supplement the teacher's own savings. Early retirement in any case involves a heavy financial burden which neither teacher nor employer would care to meet, if pension systems were planned on sound actuarial bases. As it is, the funds provided in the bills here considered are utterly inadequate to meet the liabilities that would be incurred even at later ages than those fixed for retirement. For this reason, the bills grasp at every available source of funds, whether trustworthy or not, as for example, donations, gifts, bequests, and the forfeiture of teachers' contributions in whole or in part. The first of these are uncertain and incalculable sources. The second practice is an unjustifiable tax on teachers' salaries, since the teachers have protection neither during the time they are in service nor when they leave it. The contributions should belong to the teachers at all times. None of these systems provides means for meeting the liabilities that would be incurred by the claims of teachers now in service who would be unable to make the maximum contributions required, assuming that these were actuarially sound. The result of this omission would lead to the payment of the pensions of older teachers with the contributions of younger teachers, who would find the fund exhausted when their time for retirement came. The provision of pro-rating is an indirect confession of future failure.

The impression cannot be resisted that many of these bills are introduced with a knowledge that the systems would be self-sustaining for a short period only, after which a sentimental appeal could be made to the public funds for additional assist-

ance on behalf of the aged and stranded teachers. Neither professional dignity and welfare nor the interest of the public can be safeguarded by such methods. Sentiment and charity should have no place in a matter which is intimately bound up with the educational progress of the country, and where the objects can be securely attained only by sound business principles.

The unsoundness of these systems is indicated by a comparison of the funds to be contributed by the teachers with the sums actually required on the basis of the American Table of Mortality ($3\frac{1}{2}$ per cent) to accumulate the promised pensions. For the purposes of the comparison the age of sixty has been taken as the age of retirement; in most of the systems here discussed retirement permitted at an earlier age would considerably increase the cost.

	Pension	*Teachers' Contributions*	*Cost on the basis of American Table ($3\frac{1}{2}$ per cent) about*
Kansas	$375	$375	$3000
Nebraska	500	725	5330
Washington	480	720	5117
West Virginia	250	183	2665
Wyoming	600	0	6364

Some Pension Problems

A number of interesting questions have been raised by the present development of teachers' pensions. Perhaps the most difficult continues to be the problem of accrued liabilities. How can a sound pension system be introduced without imposing too great a burden on teachers already in the service? If annual contributions are to be graded according to age, it is obvious that for teachers above a certain age the burden of the contribution would be excessive. A number of solutions have been offered. The Colorado plan did not extend to teachers above the age of forty-six, when the annual contribution towards an annuity of $300 is about $118; in the Pittsburgh plan it was proposed that all teachers above the age of forty should pay only $52 a year, the difference between this sum and the actuarial premium being met by the city; in the District of Columbia contributions were not to exceed 8 per cent of salary. In Pennsylvania contributions may be limited to 5 per cent, and in New York City to 3 per cent. It would be a violation of the principle that sound pension legislation demands the participation of both teachers and employers to require no contributions from teachers in service when a pension plan is introduced. On the other hand, the burden may be excessive. A partial solution is offered by the methods described above. The only objection to these methods is that teachers who have been in receipt of salary for some time have already made certain adjustments that cannot easily be broken; it would be futile to impose a present hardship in return for a future benefit. Another solution, already embodied in part in the New York City and Pennsylvania plans, would be to throw the major part of the burden of accrued liabilities on the public funds, and to

require teachers to pay annually only such assessments as they would have paid if the pension system had been in existence when they entered the service. Such a plan would undoubtedly be generous to the teaching profession. At the same time it would not be unfair to require all teachers to participate on such terms without option, since a pension system is presumably introduced not only for the protection of teachers but in the interests of the service. It might also be possible to take into consideration the provisions already made by teachers to protect themselves in old age and thereby reduce the amount of the contributions required.

A question that is at least second in importance is the method by which the employing authority shall meet the obligations incurred by a pension system. Hitherto the cash disbursement plan, or the provision of appropriations necessary to meet the obligations as they arise, has been employed. Under this plan the appropriations required may rise to as much as 35 per cent of the salary roll in any one year. A less expensive and sounder method is the reserve plan, which involves the setting aside of sums annually to meet the future obligations on behalf of each teacher. This method has the advantage of benefiting by interest accumulations and of providing that the necessary funds are in existence when a teacher comes to the age of retirement. One dollar set aside each year for thirty years hence would at 4 per cent compound interest become $56.08, and in forty years $95.02. Not only is the fund cheaper at the outset than the cash disbursement plan, but the amount to be placed in reserve each year may be reduced by the sums released by the withdrawal of teachers from service; since the obligations are wiped out, such sums will not be required. Another factor in favor of the reserve plan is that, while prospective payments and refunds are as a rule calculated on the basis of interest at 4 per cent, the fund may earn more and may profit by the difference.

There is no uniformity of practice in determining either the amount or the basis of calculation of the pensions. Generally the average salary at the end of service has been taken as a basis, the pension being a certain proportion of this. While the actuary can figure out the premiums and the amount of pension on this basis, the method seems to introduce a certain element of uncertainty. It is impossible to predict the course of salaries over a period of thirty or forty years. On the one hand, salaries may rise so rapidly that the contributions may be out of all proportion with the promised pension calculated on this basis. On the other hand, the loading required to meet the prospective rise may be inequitable to a large number of teachers who do not profit by the increase, and the burden be in reality borne by the lower paid teachers. Another method that is being introduced is the establishment of a flat pension, the contributions for this sum being actuarially determined. The criticism of this plan is that the contributions do not bear equally on all teachers, — the low-salaried teacher is required to pay a higher percentage of his salary than his more fortunate colleague. A suggestion which aims to meet the wishes of teachers and to introduce flexibility into pension systems is to require all teachers to contribute towards a decent minimum subsistence

allowance with permission to add to this according to means or as salaries increase; the public fund may undertake to add to the teacher's annuity up to a certain maximum. The essential point is to eliminate the uncertainty involved in a calculation of future average salary. A system that shows what rates of contributions are required to purchase annuities of various amounts is likely to make a better appeal to teachers than a system that offers only one inflexible plan.

It is advisable, also in the interests of flexibility, to introduce a number of options whereby a teacher at the time of retirement may be able to decide how the fund to his credit may be employed, whether he will purchase an annuity to cover his own life, whether he desires a smaller annuity and a continuance to his dependents, or whether any sum not exhausted by the annuity paid to him shall be returned to his estate.

There still appears to be some hesitancy about the right age for retirement. But whatever variations there may be, there is at least unanimity in not permitting retirement before the age of sixty, a marked advance on the earlier plans which made it possible for teachers to retire at as early an age as forty-five. It follows from this principle that teachers should be expected to contribute their just share towards a reasonable annuity, and that the burden should be spread over a great number of years. It was pointed out in Pittsburgh that the difference between the amount of annual contributions towards annuities due at sixty and at sixty-five for women beginning payment at the age of twenty would be more than $9 a year. The longer the age of retirement is postponed the more effectually the interest factor operates and the larger the annuity that may be purchased. Thus in the Pittsburgh plan the annual contributions that would purchase an annuity of $500 beginning at the age of sixty-five would purchase an annuity of only $300 beginning at the age of sixty. But altho there is agreement that retirement before the age of sixty is not feasible, recent plans have been considering the ages of sixty, sixty-two, and sixty-five for voluntary retirement, and seventy for compulsory retirement. These variations are due not merely to a desire to spread the annual contributions over a longer period and to secure more reasonable annuities, but also to the present lack of knowledge concerning the mortality experience of the teaching profession. Up to the present the only basis for the advocacy of early retirement for teachers has been sentiment. Until this year there have not been available adequate statistics concerning the incidence of disability among teachers. Nor are there in existence any tests that would indicate at what age a teacher's efficiency begins to decline. Under the new plans adequate records and data on these subjects will undoubtedly be accumulated. For the time empirical methods must be accepted temporarily. It may be suggested, however, that since flexibility should be at least one aim of a sound pension plan, it would be advisable to permit teachers to retire at the age of sixty, but to discourage such early retirement by increasing the inducements to remain in service. The Pittsburgh plan permitted teachers to retire at sixty, but the allowance at that age would have been only $300; the teacher who continued in service until sixty-five would have added $200 to this

sum and would have retired on a pension of $500. Another method would be to permit teachers to retire at the age of sixty, or while remaining in service beyond that age to discontinue their contributions and receive the additional benefit of interest accumulations. The question still remains whether there should be a differentiation in the ages of retirement of men and women. Here again there is little scientific evidence to serve as a guide. The only fact that is proved is that annuities for women are more expensive than for men because women after a certain age tend to live longer. Indeed, the Pittsburgh plan contemplated the adoption of the rates of contribution for women for the whole system. So far as there is any evidence, the probability is that the arguments urged above for retirement at the age of sixty or later will hold for women, and that cases of earlier breakdowns can be treated under disability provisions.

On the subject of teachers' disability there is probably less accurate information than on any other phase affecting pensions. The studies on the subject are of the scantiest and, if anything, tend to upset some preconceived notions. The question is further complicated by the fact that teachers who feel the effects of teaching on their health are apt to turn to some other occupation. It is difficult to decide what constitutes incapacity for further service or what is implied in impaired efficiency. More abuses have crept into the administration of pensions thru this cause than thru any other. As a general rule, disability protection is not provided before the expiration of ten years of service. The present tendency is to provide such annual allowance in the case of disability as can be purchased by the teacher's contributions, supplemented by a pension to bring this up to a certain minimum. It is questionable whether disability protection from the time that a teacher enters service should be provided by any pension system so long as no health qualifications are insisted upon for entrance into the service. A pension for disability, just as an old age pension, should be a reward for a certain minimum continuity of service. It is very probable, however, that the cost of disability pensions will not prove to be burdensome. Not every teacher who becomes incapacitated for teaching is unable to pursue some other gainful occupation. The pension may accordingly be reduced by the earnings in the new field. The final solution, as soon as accurate data have been collected, may be that disability protection will be separately purchased; the cost of such protection under ordinary insurance conditions appears to be small.

A final question that deserves attention is the provision for periodical actuarial valuations. The most notable contribution in the recent pension development has been the employment of actuaries instead of amateur arithmeticians. This ensures that under present conditions, assuming that they continue unchanged for a long period, the element of stability is provided. But, as has been shown in connection with other questions, the existing data affecting the life experience of teachers are not entirely adequate. It may prove in time that mortality tables for the teaching profession make a better showing than the ordinary tables; the interest rates will certainly change during the world reconstruction of the next few years; possibly the character of the teach-

ing profession itself will be altered by such an improvement in its conditions as the introduction of sound pensions. There is always an element of uncertainty that cannot be guarded against except by periodical actuarial valuations every three or every five years. Only in this way can the interests of teachers be protected. They may have to be prepared, however, for changes in the rates of their contributions—either an increase or a decrease, but in any case such changes may be looked for as will make assurance doubly sure. This matter is one that will have to be adjusted between the teachers and their employers; it may be that the effects of any change in the rates will be assumed by the latter. But the important point that must be emphasized is the need of a good start with the aid of the expert and constant supervision by the expert. The actuary will work up the data; it is for the teaching profession to consider and agree upon the sound fundamental principles that will ensure a reliable system, provide generously for the teachers' old age, be fair to the public, and promote the efficiency of the schools.

Fundamental Principles of Pensions for Teachers

Both the values and the limitations of the systems that have been discussed emphasize the importance of the Fundamental Principles of Pensions advocated by the Carnegie Foundation and unanimously endorsed by the Commission on Insurance and Annuities representing the Association of American Universities, the National Association of State Universities, the Association of American Colleges, and the American Association of University Professors. These principles may be found on page 71 of this report.

ILLINOIS PENSION LAWS COMMISSION

The Report of the Illinois Pension Laws Commission is an important addition to recent pension literature. This forms the first study of the pension problem in relation to a state, and constitutes an important supplement to the more intensive study of a city system made by the New York City Pension Commission. It is to be hoped that other pension commissions will devote the time, care, and expert skill to their studies that mark these pioneer reports.

The Illinois Pension Laws Commission was appointed by the governor of the state at the beginning of 1916, and in accordance with the act of the legislature consisted of four members—one connected with one of the existing pension funds, one versed in financial affairs, one with experience as an actuary, and one with legal attainments to serve as chairman. Professor Henry L. Rietz of the University of Illinois was appointed as the technical expert, and the commission had the assistance of another actuary who served in the capacity of secretary to the commission. The duty of the com-

mission was to investigate the operation of all existing pension laws in the state, to gather information on the present and probable future cost of these funds, and to enquire into the operation of pension laws in other states and countries.

The report consists of two parts: Part I, Investigations, with certain comparative studies, and Part II, Underlying Principles and Specific Recommendations for a Revised Pension Plan. The first part gives an account of the plans followed in carrying out the different tasks imposed on the commission. At the outset the commission was faced with the difficulty of securing information, owing to inadequate methods of keeping records, and this determined the commission to confine the scope of its detailed actuarial study to five funds — those of the firemen, police, teachers, and municipal employees of Chicago, and that of the state teachers. An examination of the operation of pension laws in foreign countries leads to a summarized conclusion that "It is not likely that countries which began noncontributory pensions sixty years ago had the foresight to predict the present cost, but fortunately at the present time experience has taught us what we may expect if we operate a pension system with little or no regard to an adequate reserve fund. The testimony that some departments of the governments in England, Germany, and Austro-Hungary pay from 30 to 40 per cent as much for pensions as for salaries is the answer of experience."

A historical study of the pension laws of Illinois brings out significantly the fact that they are characterized by an absence of foresight and ignorance of the probable future cost of the funds established. This is indicated by the fact that the original sources of revenue assigned to particular funds have either been increased or have received additions; thus the firemen's fund established in 1887 was changed five times between that date and 1916, the police and school employees' funds twice since 1887 and 1895 respectively, and the municipal employees' fund once since 1915. There is no uniformity or policy in the laws, even in those passed in the same year, in such matters as refunds or age and period of service qualifying for retirement. On the latter subject the report remarks:

"The present situation, therefore, is that one may retire on a pension as soon as he has completed a fixed term of service, though under 50, if he is a fireman, but not if he is a fire insurance patrolman; if he is a policeman in a city of 50,000, but not if he is a policeman in a city of less than 50,000 or a park policeman; if he is a teacher in Chicago or Peoria, but not if he is a teacher in any other city; or if he is employed by Chicago in a school, library or house of correction, but not if otherwise employed by the city, or if employed by Cook County."

The same chaotic condition appears on comparing the relation of contributions to pensions. For each $100 contributed to their funds the Chicago firemen receive from other sources $1487, the Chicago policemen $630, the Chicago men teachers $3, and the women teachers $87. It is not surprising, therefore, to find that "in no case in this state has any provision been made to preserve this balance" between sources of income and expenditures. The conditions here exposed are compared with similar

conditions in other states, based on a useful compendium of pension laws in the country, which brings the digest of the Massachusetts Commission on Pensions, issued in 1914, up to date.

The results of this type of haphazard and random pension legislation are more fully brought out in the chapter containing the actuarial report on the Chicago firemen's, police, and teachers' funds. To secure a working basis for estimating the probable future costs of these funds, questionnaires were sent out to secure primarily the following data:

1. The rate of mortality in the active force at given ages.
2. The rate of withdrawal by resignation or dismissal at given ages.
3. The rate of retirement on disability pensions at given ages.
4. The rate of service retirement at given ages.
5. The rate of mortality among disability pensioners at given ages.
6. The rate of mortality among service pensioners at given ages.

As a result of the tables developed on the basis of this investigation the following conclusions as to probable future costs were reached:

The sum required to provide pensions for the present policemen, their widows, and children will be $73,091,631; to meet this there was at the beginning of 1916 $120,847 cash on hand, and the future contributions of 2 per cent of salaries will amount to $1,851,066, leaving $71,119,718 to be obtained from other sources. Should the force be maintained at its present size by the addition of new men to replace those who drop out for any reason, the total cost of the pension system would be $160,253,937, of which $10,056,934 would be raised by contributions from salary and $150,197,003 from other sources. The annual charges for pensions would mount from $770,365 in 1915 to $2,209,233 in 1993, when the ultimate load would be reached and would be equal to 34.3 per cent of the payroll.

In the same way the cost of providing pensions for the firemen and dependents on the force at present would be $33,416,548, with available assets consisting of cash on hand and future contributions of $498,010, leaving $32,918,538 to be raised from other sources. The total cost of the pension system, if the force were maintained at the present size, would be $79,710,432, towards which the firemen would contribute $2,442,841, and other sources would have to furnish $77,267,591. The annual payments would increase from $339,911 in 1915 to $1,071,795, the ultimate load in 1997, or a charge equal to 36.6 per cent of the payroll.

The teachers' pension fund is apparently not as badly involved as the preceding funds, the deficiency being due mainly to the cost of the accrued liabilities which were not provided for separately. The liabilities of the fund to the present force would be $27,925,940, towards which there are present and prospective assets of $7,785,312 (teachers' contributions $3,377,370, city's contributions $3,377,370, and cash on hand $1,030,572); the balance of $20,140,628 would have to be made up from other sources.

The total cost of pensioning teachers, if the number is maintained at its present size, would be $85,175,181 ($16,456,412 from contributions of the city and teachers, and $68,718,769 from other sources). The annual charge of $191,717 in 1915 would rise to an ultimate load of $758,712 in 1997, or 7.06 per cent of the payroll. It was estimated, altho numerous assumptions had to be made, that the recently organized Illinois State Teachers' Pension and Retirement Fund, which was considered in the Tenth Annual Report, would ultimately require annual pension payments equal to between 7 and 12 per cent of the payroll, but "on the basis of available information, it does not seem safe to make a much more definite prediction than this at the present time."

This impressive statistical evidence of the unsoundness and insolvency of the Illinois pension funds serves as an introduction to a discussion of underlying principles and recommendations for a revised pension plan. The existing funds are so unsound that it would be impossible to make any patchwork attempts at improvement. They must be organized anew in accordance with definite principles. According to the report the following are the features involved in a pension system:

√ 1. *Theory of Public Employee Pensions:* A pension system for public employees is essential in the interests of public service in order that continuity of competent service may be secured, that means may be at hand to relieve the service of incompetents by superannuation, and that protection may be afforded to employees and their families in old age. A sound pension system encourages thrift, and is, for the man of small resources, the most advantageous form of safe and secure investment by means of savings during the most productive period of life.

2. *Who should be beneficiaries?* While the interests of public service can be satisfied by pensioning only the employees who become old or are injured in service, the commission was of the opinion that protection should be extended to the widows and children of deceased employees, the approval resting "mainly on the desirability of making provision for the family as a unit. . . . In short, pensions to dependents after the death of the employee are really in the nature of compulsory life insurance."

3. *Age and length of service required for pension:* Since "it seems clear that some of the greatest abuses of a pension system come from the failure to specify a proper minimum age of retirement," it is essential that a minimum age as well as length of service be required for retirement. The minimum must vary according to the nature of the service, but in each case the age selected should be such that it will not defeat the ends of a pension system. At the same time the commission is somewhat arbitrary in its subsequent recommendation that the requirements for retirement on a minimum pension should be twenty years of service and the age of fifty-five. It may be some time before sufficient information will be available to determine the relationship between age and occupational efficiency, but the prevailing impression that fifty-five is in general too early an age for retirement is something more than a mere hypothesis. There have been too many cases of men retiring on a pension at this age and engaging

in some other or even the same occupation under other employers. Early retirement not only increases the cost of pensions, if they are to be large enough to be of use, but also acts as an inducement to employees to leave service at a time when their efficiency is still high. To hedge round a provision for early retirement with rules to prevent abuse would prevent the claim of a pension as a right and convert it into a charity dependent on the whim of a board. Greater caution might have prompted the commission to fix the general age of retirement at sixty or even sixty-five, leaving ample room for lower age requirements in special services. The minimum length of service that should be required depends on a number of factors, such as the age, qualification, and experience required for admission to service and the number and amount of annual contributions that can be demanded to accumulate whatever is determined upon as a desirable minimum pension. The commission, in drafting its outline of a pension plan, refuses to permit retirement on a pension for service alone, but permits retirement after twenty years of service without pension privileges until the minimum age qualification is reached. In such cases the annual contributions to the fund by both employee and employer are to be continued as before retirement until the pension privileges are entered upon.

4. *What should be the amount of a pension?* The commission rejects the suggestion that pensions should be uniform in amount, and deems it "reasonable that a pension system should be arranged in recognition, to a certain degree at least, of the inequalities in remuneration and the variations in standards and habits of life which actually exists among public employees." Accordingly the commission makes the recommendation, already reached independently by the Foundation in its Ninth Bulletin and in its report to the Committee on Teachers' Salaries and Pensions of the National Education Association at its Kansas City meeting, that a pension plan should provide for the same minimum pension for all employees and an extra or sur-pension accumulated by additional contributions rising with the increase of salary. This principle rests on the recognition that a pension plan serves as a means of promoting thrift, and while the minimum savings should be compulsory, there is no reason why voluntary additions should not be encouraged.

5. *Method of providing funds for paying pensions:* After drawing attention to the two methods of providing funds—the cash disbursement and the reserve plans—the commission strongly advocates the reserve plan, and its most telling argument in favor of this plan is the statement that the Chicago police pension system will, when it reaches its normal load, require on the cash disbursement basis a sum equal to 34.3 per cent of the payroll, while on the reserve plan the demands could be met by a sum equal to 13.8 per cent of the payroll. The fact that under the reserve plan the assets to meet future liabilities are constantly being accumulated will prevent the load from becoming so burdensome as to lead to repudiation of obligations.

6. *Rates of the employer's contributions to those of employees:* The commission accepts the principle that a sound pension plan requires contributions from both

employer and employee because their relation is a natural basis for joint management and because financial participation of this kind develops a more real sense of the cost involved. Equal contributions are recommended by the commission in the case of the extra or sur-pension, but the suggestion is urged that the employer bear a larger proportion of the cost of the minimum pension than the employee, "on the ground that it will tend to aid those most in need of aid," that is, the lower paid officials. It may be argued, on the other hand, that the greater the contribution by one side or the other, the greater will be the share demanded in the management. Further, since contributions for pensions are essentially a part of wages and salaries,—a fact accepted by the commission,—the tendency would be not merely to depress wages by the amount of contributions over and beyond that of the employee, but those employees who withdraw from service before becoming eligible for retirement would forfeit these additional benefits which they were indirectly contributing. So far as the minimum pension is concerned, a sounder principle would require equal contributions from employer and employee, while for the sur-pension the contributions of the employer might bear a constantly decreasing ratio to the contributions of the employee and cease when a certain maximum pension is reached.

The principle of refunding with interest all contributions made by the employees is accepted, and the recommendation is made that the employer's contributions should revert to his credit. A suggestion which deserves some further consideration would be that the employer's contributions be allowed to remain in the fund; such sums with their accumulated interest would in time serve to reduce the cost.

7. *Management:* Pension funds for special services should, according to the views of the commission, continue to be administered separately because expert knowledge of special conditions is essential to their management. Both employers and employees should participate in the administration of the funds, but the administration of the different systems should be unified by the prescription of uniform records and reports and by having one or more members common to all the boards. This recommendation is open to considerable criticism. One of the causes of abuse in existing funds has been their administration only by those familiar with the conditions of the service. Sentiment rather than science has been the moving factor in this type of administration; lack of uniformity in every particular has been its characteristic. The failure of so many funds at the present day emphasizes nothing so much as the need of uniform and expert management in the interests of actuarial soundness and administrative efficiency. Neither of these advantages can be secured by establishing a multiplicity of boards loosely linked together by one or more common members.

The principles here discussed are embodied in an outline for a standard pension plan, and additional suggestions are made for bringing existing pension funds under this plan, in other words, for meeting the accrued liabilities. In general the chief difficulty in making the transition from the old type of pension systems to the new plans is due to the difference in the amount of contributions demanded under each. The

commission recommends that the difference between the amounts, with interest, contributed by employees who entered service under the age of thirty-five, and the total amount which they would have contributed in the same period under the new plan shall be paid in equal monthly instalments, spread over the period remaining before the minimum age of retirement is reached, in addition to the contributions required under the new plan. The total annual contributions thus made are not to exceed 5 per cent of salary. The remaining difference between the existing pension fund and the amount which would have been in the fund if the standard plan had been in existence during the period of service of all the employees is to be paid by the employer in annual instalments spread over forty years. The pension obligations already incurred under the old plan are to be met, with the exception that payment is to be suspended to those retired employees who are still able-bodied and have not reached the minimum age for retirement under the standard plan.

The accumulation of pension literature of the character of the Illinois Commission's Report combined with the consideration of pension bills based on sound principles must inevitably bring about the desired reforms in this field. Differences in detail must continue to exist, and, indeed, more will be gained in the long run from variety of experience than from uniformity and standardization in these matters. But on the main point, the desirability of promoting the universal recognition of sound principles, there can be no doubt. Toward this end the Report of the Illinois Pension Laws Commission is a valuable contribution.

NEW YORK CITY PENSIONS

The difficulties that have so long beset the reorganization of the pension system for the teachers of New York City have finally been overcome and a new plan has been approved by the New York Legislature. A few malcontents remain in the teaching body, but in general the mass of the teachers recognize that the new plan is generous, protects their interests, and is based on sound actuarial principles. However objectionable certain aspects of the long campaign over pensions may have been, it has been of great value in educating teachers and public, in defining the responsibilities of the public employer in the matter of pensions, and in determining sound pension principles in relation to these elements.

The new system is to be managed by a board of seven members, including the President of the Board of Education, the City Comptroller, two members appointed by the Mayor, and three elected by the teachers. The funds are to be derived from contributions by the teachers and the city. New entrants are to pay such per cent of their salaries as will yield annuities equal to 25 per cent of their average salaries during the ten years preceding their retirement. The vexed question of the amount of assessments that could be levied on teachers in service at the time of the introduction

of the system was settled by establishing a maximum annual contribution of 3 per cent of salary, leaving it optional to the teachers to pay this sum, or such per cent of salary as will, with interest, yield at the age of sixty-five an annuity equal to 25 per cent of their average salary during the last ten years of service, or a per cent of salary greater than 3 per cent to yield a larger annuity. The city undertakes to bear the cost of administration, of the pensions of teachers retired under the old plan, and of approximately half of the future pensions. The first two charges will be met by annual appropriations. For future entrants the city will establish a reserve fund to pay pensions of 25 per cent of average salary during the last ten years of service, disability allowances of 20 per cent of average salary, and death benefits equal to 50 per cent of the salary in the year preceding the death to the estate of a teacher dying before becoming eligible to retirement. In addition, the city will establish a reserve fund to pay teachers now in service pensions equal to the amount of the annuities accumulated by their contributions, a sum estimated at $1,000,000 a year, until these pensions are paid off. The additional accrued liabilities which the teachers have not been able to meet on account of age or length of service when the plan is established, will be met by annual appropriations. In other words the city will provide adequate funds which, together with the teachers' own contributions, will assure teachers now in service retiring allowances of 50 per cent of their average salary during the last ten years of service. It will be noticed that the city's share is to be met by a compromise—part on the reserve plan and part on the cash disbursement plan.

Under the rules of the new system teachers are permitted to retire upon demand at the age of sixty-five or after thirty-five years of service. The age of compulsory retirement is seventy. Those who wish to retire after thirty years of service may do so on reduced allowances, the actuarial equivalent of the accumulations to their credit. Retirement on account of disability will be permitted after ten years of service and examination by physicians of the Retirement Board. Teachers retired on the basis of disability will be subject to physical examinations periodically until they reach the age of sixty-five.

The amount of the service retiring allowances will be equivalent to 50 per cent of the average salary during the last ten years of service; the disability allowances will be equal to 20 per cent of the average salary from the city and such annuity as may be purchased by the accumulation of the teachers' contributions.

On retirement teachers have the choice of a number of options: (*a*) to receive their allowances in monthly instalments; or (*b*) to receive reduced payments with the provision that any sums remaining at death shall be paid to heirs or assigns; or (*c*) to receive reduced payments with payments to a designated beneficiary thru life; or (*d*) to receive such other form of actuarial equivalent as may be approved by the Retirement Board.

Teachers withdrawing from the service before becoming eligible to a retiring allowance will receive a return of their accumulated contributions with compound interest

at 4 per cent. The death benefits of 50 per cent of the salary in the year preceding death have already been mentioned. Other privileges to be extended to the teachers will be the right to withdraw so much of the savings to their credit as exceeds the amount necessary to purchase their annuities, or they may borrow from the Retirement Board on the security of life insurance policies.

The retirement law provides for an actuarial investigation to determine the rates of contributions immediately on the establishment of the fund, followed by other investigations in 1919 and 1922 and every five years thereafter. The system is placed under the supervision of the State Department of Insurance.

The establishment of the new system marks an important step forward in the practical application of the results of recent pension studies. The system is not entirely free from objections, which are due in part to the predilections of the actuaries and in part to a desire to meet the demands of the teachers. Those who were responsible for drafting the bill missed an opportunity for introducing flexibility and simplicity. The system still retains the complicated method of calculating the pensions on the basis of average salary during the last ten years of future service. No actuary can tell with certainty what future salaries will be; as matters stand, the annual assessments and reserves are made on the basis of the present scale of salaries. It may be claimed with certainty that present scales will change. Indeed, the New York teachers have already organized a campaign to secure a general increase of salaries. Should such a change take place, the amount of the pensions due will increase, but for the present the assessments and reserve fund are adjusted to present expectations. The result will be that the fund will at some time in the future be confronted with a deficit. Not only is the fund itself affected by this uncertain element, but the teachers themselves cannot foretell the amount of the pensions which they can rely on receiving when they retire. This method of calculating pensions places too heavy a load on the contributions of those with small salaries in order to provide a greater pension than that for which they may be eligible. The actuarial mind seems here to be rooted in a tradition which is due partly to an effort to defeat the undue enlargement of pensions by increasing salaries towards the close of the period of service. The proposal of establishing a definite minimum retiring allowance which would offer decent subsistence and which teachers could supplement by purchasing additional annuity with assistance from the city up to a given maximum as salaries increased would introduce flexibility and a system whose obligations would be more easily calculable. It is not only simpler but more businesslike to say to teachers that a retiring allowance of $500 can be purchased for a definite sum set aside each year than to require a percentage of salary in return for an undetermined allowance based upon an indeterminable salary thirty or more years hence.

The uncertainty in the amount of future retiring allowances is equaled by the temporary uncertainty of teachers as to the rate of deductions that will be made from their salaries. Up to the present only provisional scales have been issued. The law provides

that the actuary of the Retirement Board "shall make such investigations of the mortality, service and salary experience of the teachers as the Retirement Board shall authorize," and on the basis of the results "shall adopt such tables and certify such rates as are required." This process is to be repeated in 1919, 1922, and every fifth year thereafter. Actuarial control and investigation are essential, but whether they need to be repeated in two or three years is doubtful. The surprising element in this provision is that it practically ignores the work of the Pension Commission which, after more than two years' study, has already reported on the mortality, service, and salary experience of New York City teachers. Not only are the teachers left in the dark until after they have accepted the provisions of the act, but it appears to create an unnecessary duplication of actuarial work and to carry caution too far. Such excess of caution would be made unnecessary by providing a definite pension, as suggested above.

The teachers were able to secure a provision, probably against the better judgment of the actuaries, which permits their retirement on the same allowance either at the age of sixty-five or after a total service of thirty-five years. The inclusion of the service eligibility may result in the retirement of teachers between the ages of fifty-five and sixty-five. Since the cost of an annuity increases in inverse order with the age of retirement, and since no distinction is apparently made in the amount of the retiring allowance at the age of sixty-five and after thirty-five years of service, it is clear that the assessments must be loaded sufficiently to provide for retirement at an earlier age than sixty-five—an unnecessary burden to the teacher in good health. If retirement on the basis of service must be included, then a lower retiring allowance should be provided than when retirement takes place at the age of sixty-five. This factor was recognized in the provisions permitting teachers to retire after thirty years of service, but only on such allowance as is actuarially due from the accumulated contributions of both teachers and city. It is, however, carrying flexibility too far to permit teachers to retire after thirty years' service without some more valid reason than their own desire. If such teachers are disabled, the disability clause protects them up to the age of sixty-five. If they are in good health and efficient, then the city should impose some penalty on early retirement. The city might, for example, refuse to pay more than a certain percentage of its share of the burden instead of an amount equal to the annuity purchasable by the teachers' savings. If such a provision is impossible at present, it might have been made applicable to future entrants as a condition of service.

In spite of these objections the city authorities, the teachers, and the pension commission are to be congratulated on inaugurating a new era in the city's pension history. The passage of the present act must have a salutary effect on the work that still remains to be done by the commission—the reorganization of some eight other funds of the city. The disastrous career of the old teachers' pension system is not likely to be repeated; the experience of the future can only contribute to such improvements as will eliminate the inheritances from the past.

PENNSYLVANIA

THE salutary effect of recent pension discussions is nowhere better illustrated than in Pennsylvania. Two years ago a bill, which was considered in the Tenth Annual Report, failed to pass largely because it was based on unsound principles that were satisfactory neither to teachers nor to the public. This year a new bill, which was backed by the combined support of the State Teachers' League and State Educational Association, has been enacted to come into effect in 1919, and embodies many of the sound principles that will ensure stability and meet the needs of the teaching profession. The bill was drafted by the actuary of the New York City Pension Commission and contains many of the features of the New York City pension scheme, including actuarial valuations, in addition to one already made, in 1919, 1921, 1924, and every fifth year thereafter. It differs, however, from this plan in several particulars: Membership is to be optional for teachers in service at the time of the establishment of the system. Retirement will be permitted only on the basis of age—sixty-two—or disability. The fund will be accumulated wholly on the reserve plan. The teachers' contributions will be determined according to age, sex, mortality tables, and interest rates, but teachers will have the option of not paying more than 5 per cent of salary each year, and the maximum salary from which deductions will be made will be $2000. Teachers in service at the establishment of the fund will be expected to pay contributions only for that part of their service following the establishment, and the state will meet the cost of the allowance dependent on prior service. The calculation of the retiring allowance, altho differing in detail, is based on the same principle as that employed in the New York plan. The allowance consists of one one-hundred-and-sixtieth of final salary for each year of service. This method is open to the objection, in addition to the others discussed in connection with the New York plan, of taking the final salary only as the basis and thus exposing the system to abuses that have not been unknown in other schemes of this kind.

In general it is intended that a teacher shall retire on request at the age of sixty-two and compulsorily at the age of seventy on an allowance equal approximately to half salary, or on the ground of disability after ten years of service on an allowance equal to at least thirty per cent of final salary rising to a maximum of eight-ninths of the amount of the retiring allowance which would have been due, had the teacher remained in service for that length of time. The disability provision is well protected and requires frequent physical examinations. If a teacher retired on the basis of disability should recover sufficiently to pursue some gainful occupation, the amount of the allowance may be reduced by the amount thus earned. Refunds of total contributions are provided for with interest compounded at 4 per cent.

It is estimated that the present value of the benefits that would accrue to the 42,727 teachers now in service would amount to $60,587,657, of which $22,793,664 would be contributed by the teachers and $37,793,993 by the employers. To accumulate

the employers' share would require the annual appropriation of a sum equal to 5.6 per cent of the payroll for teachers now in service, or about $1,500,000 annually, and to 2.75 per cent for future entrants, beginning the first year with about $25,000.

The act is state-wide, and altho it does not come into effect until 1919, an appropriation not to exceed $20,000 was made to furnish the expenses involved in establishing the fund. The act does not apply to those school systems that already have a pension plan in force unless two-thirds of the teachers petition to join the state system. While the state will administer the fund thru the Retirement Board of seven members (the Superintendent of Public Instruction, the State Treasurer, one member appointed by the Governor, three members elected by the teachers, and one member elected by the Board) and will guarantee the financial soundness of the fund, the act provides that the state shall be reimbursed by the employers of the teachers throughout the state to the extent of one-half of the amount paid by it to meet the future costs of the pensions. The intention of this provision is clear; it is an effort on the one hand to interest the local employer in the welfare of teachers and on the other to distribute the cost. But, however laudable these purposes may be, the principle is open to several objections, of which the strongest is that since the act provides that the state may reimburse itself out of money due to local education authorities for school purposes, the school expenditures may be crippled to that extent. If the state desired to share the cost of the pensions, this should not have been done at the expense of the schools. The burden of the cost may tend to discourage local authorities from raising salaries, or lead to the employment of only low-salaried teachers, and to this extent the migration of good teachers may be checked. A state pension system, state maintained in reality and not in name alone, would result in realizing a principle that is beginning to be established, that teachers are state servants; it would tend to consolidate the profession and break down the rigid and artificial barriers between rural and city school teachers; and finally would contribute towards a general raising of standards based on community of professional interests and a recognition of community service. Even if the state assumed the total cost of the employers' share of the pension system, the burden would indirectly be distributed throughout the state without the possibly deleterious effect on the school funds.

ONTARIO

During the past two years the Ontario educational authorities and the Provincial Educational Association have revised the pension bill proposed in 1915 and discussed in the Tenth Annual Report. The act which was passed this year is based in general on the same principles as the previous unsuccessful bill. The system is to be contributory, but instead of the teachers, local authorities, and the provincial government participating, contributions will be paid only by the teachers and the provincial gov-

ernment in equal shares of sums equivalent to 2½ per cent of the salary each year. Every teacher is expected to contribute on the basis of a salary of at least $550, in order that a minimum pension of about $365 may be assured. The maximum pension is to be $1000 a year, but where a teacher's contributions, owing to high salary, can purchase an annuity greater than this sum under the Dominion Government Annuity system, the larger annuity will be paid. Teachers may qualify, after forty years of service, for full pensions equivalent to one-sixtieth of the salary during the last ten years of service for each year of service. Those who wish may retire after thirty years of service on a pension which is the actuarial equivalent of the full pension. Retirement on the basis of disability is provided for after fifteen years of service on an allowance determined in the same manner as the superannuation pension. Refunds in case of withdrawal from service may be provided, if warranted after an actuarial investigation in 1921 and every three years thereafter, but no refunds will be paid under any circumstances until after five years of service. In case of death, the total amount contributed by a teacher will be returned to his representatives. Claims will be considered by a commission consisting of an actuary and two other persons appointed by the Minister of Education and two teachers elected by the Ontario Educational Association.

The new act differs so little from the earlier bill that the criticisms then made would apply in the present instance. The act makes no provision for meeting the accrued liabilities with the exception that each year of service prior to the passage of the act will count only as a half year. A teacher who has had twenty years of service prior to the act and twenty years succeeding it will be eligible to retire on a pension calculated on the same basis as tho his total service had been thirty years. The pension for the ten years during which the teacher has made no contribution will be paid out of the reserve fund accumulated by contributions from the government and the teachers. In other words, these contributions will not be reserved, as they would be if individual accounts were kept, to pay the pensions of individual teachers, but will be pooled to meet claims as they arise. The fund will be in danger of being depleted by the demands of the accrued liabilities. In the same way, since the higher and lower limits of the pensions are $365 and $1000, there is a possibility that the more highly paid teachers will receive less than the annuity that could be purchased by their accumulations, while the teachers with smaller salaries will receive the benefit of the difference. It is unfortunate that the basis for calculating the pension is the average salary during the last ten years of service, and that the salary contributions bear no immediate relation to such sums. It is undesirable, too, to retain a teacher's contributions under any circumstances whatever; under the act refunds may be made, if an actuarial investigation warrants it, but not until after five years of service. The justification urged in favor of this practice is that a teacher owes something to the state in return for his education, a plea not infrequently advanced to justify low salaries. Compulsory contributions to a pension fund are justifiable, but only on the ground

that the teacher is being helped to save as a protection against the hazards of life; the savings of the teacher should, therefore, be returned under all circumstances.

It is somewhat unfortunate that the educational authorities and the Association did not follow the excellent precedent of the Dominion Government Annuity system. There is, indeed, no reason why the contributions of the teachers and the government should not have been employed to purchase annuities thru this agency. Such a course would have assured individual accounting, contributions actuarially adjusted to age, sex, and the amount of the annuity expected, and security for the future.

ALBERTA

The progressive measure recommended to the Alberta Educational Association by its Committee on Pensions affords another illustration of the beneficial influence of recent pension investigations. After studying the problem for several years the Committee arrived at the conclusions that a pension scheme must provide genuine protection for old age, must help to attract men and women to the teaching profession, and must provide for those already in the service. These ends could be attained only by a system requiring compulsory contributions, organized on sound actuarial principles, and assuring the teacher a return of his contributions in the event of withdrawal from the profession. Bearing these purposes in mind, the Committee decided to recommend a system of insurance thru selected companies rather than an ordinary pension scheme administered by the provincial education authority. The advantages urged by the Committee in favor of such a plan are continuous protection, the conversion of paid-up policies into annuities, the possibility of protection for dependents, the security of contributions, the elimination of an expense fund, and actuarial soundness. The chief weakness of the plan is the absence of protection in case of disability, a deficiency which can probably be remedied.

The details of the plan have not yet been worked out, but it is proposed that its operation be supervised by an Insurance Committee representing the teachers and the provincial government. A variety of insurance policies will be offered and teachers will be permitted to take out any policy they choose with any one of the selected insurance companies. The government will pay one-half or a greater proportion of the premium, the remainder being made up by the teacher; the total contribution is to be equivalent to a certain percentage of the teacher's salary. Facilities will be offered for additions to the policies or for taking out new policies as salaries increase. It is suggested that policies should mature at the age of sixty, but those teachers who do not wish to retire at that age may leave their policies with the companies to accumulate at a fixed rate of interest. In the case of withdrawal from the profession, a teacher may leave his policy with the Insurance Committee or he may keep it up

himself. The scheme is to be compulsory on all teachers entering the profession after a date to be determined.

The similarity between this scheme and the insurance plan of the English Federated Universities and that proposed for English secondary schools will be readily recognized. The most striking merit of such plans is that they are as actuarially sound as the experience of insurance companies can make them. As the recommendations stand at present, the chief criticism is that the suggested age of retirement is somewhat early, altho the plan of leaving policies to accumulate at a fixed interest offers an inducement to continue in service. As compared with a pension system based on the savings-plan principle, the teacher in case of withdrawal from the system will receive only the surrender value of his policy, which will presumably be lower than the total of his contributions with interest. The conditions which rendered the English schemes advisable, such as variety of conditions of service, salary, and administration, are not present under a public school system controlled by a central authority; it may well be objected in some quarters that this authority should undertake the responsibility of conducting a pension or insurance scheme for its teachers. The Committee's claim that under its suggested plan the need of an expense fund would be eliminated is not valid, since each premium would be loaded to pay the administration expenses of the commercial company issuing the policy.

Another objection that may be raised is that in a profession consisting largely of women the demand for insurance protection may not be as clear or as pressing as the desire for protection against disability and old age, both involving types of policies which are not frequently issued by insurance companies, or whose cost is not as standardized as that for life insurance.

Whatever criticism may be based against the details of these recommendations, the great stride made in pension matters is indicated by the absence of objection to the general principles. To the Committee of the Alberta Educational Association must be given the credit of laying the foundations of a system for the retirement of teachers which will avoid from the start the dangers and pitfalls of so many existing teacher's pension funds. The two years that they have given to the study of the problem have been well spent, if the results do nothing more than convince the teachers of the Province that pensions and insurance are commercial matters and not affairs of sentiment, and that they are both governed by sound actuarial principles. Any modifications that may result from the deliberations of the convention to which the Committee is to submit its recommendations should not disturb these principles. The details of the scheme appear, however, to be still open to further discussion.

PENSION REPORTING

Recent pension studies and investigations raise the question whether the current reports issued by pension systems offer available information for such enquiries. In every case the investigators have been compelled to begin anew and to collect the necessary data from such sources as were elsewhere open or by means of questionnaires. One may argue the instability of pension funds from the fact that not one of the reports offers a genuine answer to the scrutiny of the actuary. The character of the annual reports that are now prevalent furnishes indirect but strong evidence of the unscientific nature of most of the existing funds. At best the only information that can be gleaned from the annual report of a typical pension system is a statement of income and expenditure, of the number of annuitants with the amount of their annuities, and of the membership, withdrawals, and deaths. Reports of this kind are almost sure to be misleading, for they furnish no information as to the stability of the funds. A pension report should be something more than a mere annual statement of debit and credit with an indication of a balance to be carried on to the succeeding year. The obligations of a pension fund are not from year to year, but as far into the future as the probable length of life of the youngest member of the fund, and in some cases even of his dependents. A scientific report should show that the means are available, or are being accumulated, to carry out the implied promise to this youngest member to protect him in old age.

The obligations upon a pension fund for accurate reporting are no less than upon an insurance company. Both undertake to make payments in the distant future, and the requirement that is almost universally imposed on the latter to show how these promises will be met should be as binding on the former. An insurance company is annually expected to prove its solvency by a statement of its assets and liabilities, of the amount of insurance in force and of new business acquired, of the rate of interest earned, of its rate of mortality as compared with the accepted tables, and, finally, of the adequacy of its reserves to meet obligations as they accrue. Such statements imply solvency in the future, and do not present a picture of the hand-to-mouth existence portrayed in so many annual pension reports.

What, therefore, should be expected from a pension report? Obviously a mere statement of income and disbursements and of the number of annuitants is inadequate if the aims of a scientifically organized fund are to be realized. The function of a pension report should be to indicate what the obligations of the fund are and how they will be met. It is essential, therefore, that a clear statement should be presented of the assets and liabilities. The former should show what resources may be expected from the contributions of employers and employees, the amount and nature of investments, as well as the resources on hand. The liabilities would be based on the amount of pensions, disability allowances, and allowances to dependents that may be expected to accrue to the teachers in service at the time of the report. The latter statement

involves a clear knowledge of the number of teachers in service, the number of withdrawals from service for various causes, the number of deaths in service, the number retired for age and for disability, and the number of new teachers added to the service, all distributed by age and salaries. It would be necessary also to know how many teachers are on the retired list, how many are in receipt of disability allowances, and how many have died, again distributed by age. Additional information as to marital and family status would be required if provision for dependents were contemplated. Probably all the facts here mentioned would not be called for each year; they should certainly be accessible for periodical actuarial surveys. But for the time being clearness and detail are essential until the vital statistics of the teaching profession are more thoroughly established than they are at present. Many questions around which the foundation of a sound pension system centres are here involved—the longevity of teachers professionally and generally, the incidence of disability, the rate of withdrawal, and the rate of mortality. It may be that, when these statistics are as definitely ascertained as are the tables of mortality employed by insurance companies, it will be found that the cost of pensions to any system can be appreciably reduced.

Reliable pension reporting is accompanied by the obvious corollary that more careful, detailed, and accurate records must be kept. In the recent New York and Illinois pension surveys the investigators were compelled to have recourse to three or four different sources to secure the records of one department. In the case of a study at present being conducted by the Foundation a state education department was unable, without resorting to questionnaires, to present a statement of the number and causes of withdrawals from its service during the last ten years. The possession of vital statistics for any profession is essential not merely for pension or insurance purposes, but for the improvement of the status of that profession. The nature of the records that should be available has been indicated by the recommended contents of the reports; these constitute the essentials; other facts that should be available will suggest themselves after a study of the recent pension investigation; others again might well be collected by the pension bureau for their professional value. The opportunity afforded by the study and adoption of sound pension principles and the establishment of sound plans should be made the occasion for the introduction of a certain degree of uniformity in fundamentals at least. The profitable exchange of thought on pension matters during recent years could be continued by the adoption of methods of reporting that would be accurate, significant, and helpful in modifying current notions on the subject. ✓

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PART IV

EDUCATIONAL ENQUIRY

DIVISION OF EDUCATIONAL ENQUIRY

There has been issued from this Division during the past year Bulletin Number Ten on the subject of Federal Aid to Education. The Bulletin brings into feasible compass much valuable information concerning the beginnings of national support of education which is inaccessibly scattered thru the columns of the *Congressional Record.* The publication is especially pertinent at this day when national support of educational projects in the various states is constantly being urged.

The status of the principal studies that have been in progress for some years past is set forth in the following paragraphs.

THE REPORT ON ENGINEERING EDUCATION

The study of engineering education that the Foundation has been conducting for the past three years in coöperation with the joint committee of the national engineering societies is completed and the report is being prepared for the press. The entry of the United States into the war has produced a clearer appreciation of the importance of the engineer and a sharper definition of his functions. The engineer's own conception of his professional status has also changed, so that the demand for changes in the methods of training engineers has become more pressing. The publication of this Bulletin now is timely and appropriate.

LEGAL EDUCATION

The existence of a state of war between the United States and Germany overshadows legal education in common with other peaceful — or relatively peaceful — pursuits. It is too soon to predict whether the line of educational progress initiated when we threw down our arms in 1865 has been only temporarily interrupted and will eventually be resumed with little fundamental change of aim, or whether the year 1917 marks the definite close of this chapter in our history. The radical changes that are occurring in our political and economic structure, if carried over into times of peace, can hardly fail to react upon our law schools. Whatever the future may have in store for us, there is no doubt that legal education is injuriously affected by conditions as they are to-day. Not only are the major energies of the community diverted to meeting a national emergency, so that little interest can be aroused in slowly maturing programmes of reform, but some actual loss of what has already been gained is inevitable. Young men of spirit cannot give full attention to their books in an environment that resounds with preparation for war. For those who suspend their studies to follow the flag, concessions from the regulations applicable to normal times must be made. Special examinations to prevent loss of credit for work completed before leaving the school, or even actual remission of part of the requirements, have been made by the schools. Bar examiners, here as in Canada, are allowing time spent in military

service to be counted as part of the period of study they prescribe prior to taking their examinations. In one state the contention that judicial control over admission to the bar cannot be interfered with by the legislature has, in the excitement of the times, been given unwonted application. Hitherto, on the few occasions when this disputed doctrine has been successfully invoked, it has been for the purpose of preventing the legislature from breaking down barriers placed around the profession by the courts. In Michigan, however, when patriot graduates of the University of Detroit Law School demanded this spring a special examination which the State Board of Law Examiners were not prepared to give on short notice, the Circuit Court came to their rescue by giving the examination itself. The precedent, should it be allowed to stand, would reduce recent legislation, establishing for the first time an effective system of bar admissions in this state, to so much waste paper.

None of these occurrences would have been justifiable in ordinary times. Some of them cannot be defended even by the war-time argument which excuses so much. It is incumbent upon all of us to retain command of our emotions in the present crisis, and realize that while the usual standards do not and should not apply, this should not be made the signal for demoralization. Somewhat of our ideals must be sacrificed in order that the rest may survive. This does not mean that the pot should be thrown after the handle. Young men—and perhaps particularly young Americans—are naturally inclined to underrate the importance of school work and school regulations, as compared with the patriotic duty of service in the field. They should ask themselves if they really can, as individuals, serve the community better in the army than in the less spectacular activities of professional life; and if they are convinced that they can, and are prepared to offer all that they have and all that they are, then they should not cheapen their sacrifice by demanding scholastic favors. It is more important, at the moment, that we should have an efficient army than a highly educated bar, but a young man cannot at one and the same time prepare himself to be both a soldier and a lawyer. Bar examiners and law school authorities likewise face the heavy responsibility of steering their course between two extremes. If, on the one hand, they should not follow the line of least resistance, and in natural sympathy with the aspirations of youth "let everybody by," neither should they make the even graver mistake of not recognizing that this is a changed world in which we are living. It is proper that everything within reason should be done to minimize the sacrifices of those who go to the front, even at some cost to scholastic standards. Particularly in view of the fact that our universities harbor individuals, conspicuous because of their rarity, who are not in whole-hearted sympathy with the War, even the appearance of interposing obstacles to its successful prosecution must be sedulously avoided.

Finally, for those of us who are still further removed from the fighting edge of the state—who neither defend our country in time of war, nor make and administer its laws in time of peace, nor even educate its future politicians and practitioners ourselves, but merely comment more or less effectually on those who do—our best

service is to pursue the even tenor of our way, in the belief that our work possesses ultimate if not timely value. The material for the Foundation's study of legal education may now be said to have been fully accumulated. The special gaps in our information, mentioned in my last Annual Report, have been filled. Such further details as are still occasionally requested by correspondence concern rather minute points—as for instance old attendance figures—of no great importance in themselves, or are for the purpose of keeping our information up-to-date, and do not operate in any way to delay the general organization of the material. This is now in an advanced stage. Whether the manuscript when completed will be published at once will necessarily depend largely upon the international situation.

A question of immediate interest to many schools is the effect that the War may be expected to have upon their student attendance. The following figures for the Civil War decade may be of interest in this connection. Since the Annual Reports of the United States Commissioner of Education do not go back of 1870, the information has had to be compiled from annual catalogues or alumni lists, or in several instances has been secured by correspondence with officials of the institutions in question. For Harvard several sets of figures exist; those have been used which seem most nearly comparable to figures available for other institutions. The table includes all Northern university law schools in existence at the outbreak of the war, with the exception of the Kentucky University (Transylvania) school, closed by the war and reopened in 1865 with 13 students. Corresponding figures for four of the seven antebellum Southern university law schools are also appended.

Attendance at Fourteen Northern Law Schools, 1860–70

	1859–60	*1860–61*	*1861–62*	*1862–63*	*1863–64*	*1864–65*	*1865–66*	*1866–67*	*1867–68*	*1868–69*	*1869–70*
Harvard University	166	158	103	89	124	125	177	157	125	138	120
* Univ. of Albany (present Albany Law School)	105	133	86	86	118	106	154	146	102	79	68
Univ. of Michigan	90	159	129	134	221	260	385	395	387	342	308
* Cincinnati L. S.	76	65	14	25	19	20	61	44	14	31	45
U. of Pennsylvania	71	71	54	47	62	65	66	67	67	63	49
New York University	67	79	70	70	75	16	25	25	25	30	25
Columbia University	62	100	111	149	169	158	178	166	184	204	230
* Univ. of Louisville	36	27	8	9	10	14	28	27	23	16	19
Yale University	28	30	28	34	31	32	35	26	16	17	18
* Univ. of Chicago (present Northwestern University)	11	14	10	11	24	26	24	20	13	20	29
* McKendree College	—	7	2	1	3	0	2	2	4	0	0
* Indiana Asbury Univ. (present De Pauw)	8	4	2	—	—	—	—	—	—	—	—
* Hamilton College	0	2	2	1	2	1	0	3	2	2	6
* Univ. of Indiana	0	0	4	6	11	6	13	14	11	13	20
Total	720	849	623	662	869	829	1148	1092	973	955	937

* Graduates.

Attendance at Four Southern Law Schools, 1860–70

	1859–60	1860–61	1861–62	1862–63	1863–64	1864–65	1865–66	1866–67	1867–68	1868–69	1869–70
* Cumberland Univ.	66	38	—	—	—	—	—	29	9	34	24
Univ. of Virginia	131	135	9	5	7	10	67	121	109	116	109
Univ. of Mississippi	29	19	25	—	—	—	—	—	24	14	22
Univ. of Georgia	26	40	—	—	—	—	8	0	10	4	12
Total	252	232	34	5	7	10	75	150	152	168	167

Analysis of these figures shows that the aggregate reduction in attendance at the Northern schools, during the first year of the war, was little over 25 per cent, and that after two more years this loss was fully made up. The return of the soldiers to civil life in 1865 was marked by a heavy increase (more than 35 per cent) over this level. The sagging tendency during the remainder of the decade is doubtless due in part to the fact that the attendance just after the war included an unusually large floating element, which studied law only as a stopgap while awaiting an opportunity to establish themselves in commercial pursuits. In part, however, it is also attributable to the competition of new schools started during the decade. Competition also explains most of the variations in the individual schools, notably gains made by the new Columbia and University of Michigan schools at the expense of weaker institutions. During the latter years of the decade these two schools contained between them over half the total number in the older Northern schools. Harvard was hurt, in addition, by the loss of its Southern clientèle; 20 per cent of its students, in 1859–60, had come from Southern or border states. The New York University Law School, after having been already outdistanced by Dwight's Columbia school, was temporarily wrecked in 1864 by a raise from a one-year to a two-year course.

It would appear, therefore, that, in the North, war conditions in and of themselves did not operate to produce to any serious extent an actual reduction in law school attendance. The Civil War did have the effect, however, of preventing the schools from growing as rapidly as they would otherwise have done. The table shows that in ten years the total figures for the Northern schools increased from a little over 700 to a little over 900. Allowing for students in one-year schools who did not graduate and are not included in the computation, 800 and something over 1000 respectively would be a fair estimate for the aggregate attendance at these schools. The figures reported by the United States Commissioner of Education, ten years later, for such of these schools as survived increasing competition with newer institutions, show an aggregate attendance of no less than 1674—a gain of about 60 per cent, as against one of about 30 per cent for the war decade.

The effect of war and reconstruction upon the Southern schools was naturally much more disastrous and long continued. Utilizing Cumberland figures for actual attendance, which are fortunately available for the years in question, we find the following

* Graduates.

progressive diminution in attendance at all four of these schools, between 1860 and 1880:

	1859–60	*1869–70*	*1879–80*
Cumberland University	180	67	48
University of Virginia	131	109	104
University of Mississippi	29	22	21
University of Georgia	26	12	4
Total	366	210	177

THE TRAINING OF TEACHERS

Owing to the amount and importance of the material assembled for the study of the training of teachers in Missouri, it has been found desirable to issue the report in successive parts. Statistics relating to the conditions of the teaching profession in the state will be fairly trustworthy for several years; altho these facts form an important background against which to study the institutions, their complete working out requires considerable time. The institutions, on the other hand, change more rapidly. This is especially true where they are the objects of especial critical attention. It need not be said that the Foundation's study has already been directly responsible for any particular modifications in the Missouri normal schools; nevertheless extensive changes have taken place since the study was inaugurated and almost without exception in the direction of which competent critics would approve. As it has been the object of the enquiry to approach the problems of these schools from a genetic point of view, the recent changes serve only to prolong the evolution. But their statistics undergo an alteration that soon renders them less valuable; it is proposed, therefore, to submit the discussion of the normal schools, which constitute the largest single group of training agencies, in a separate, preliminary bulletin now ready for publication. On this will follow the portions relating to the University of Missouri and all subsidiary agencies, as well as those that deal with the professional population of the state.

Reference was made in the Eleventh Annual Report to a special consideration of professional curricula for teachers which the Missouri study had suggested. This phase of the enquiry has developed auspiciously. Provisional statements of various typical curricula were worked out by Professor W. C. Bagley, Director of the School of Education at the University of Illinois, who had collaborated on the Missouri report. These curricula were discussed by representative groups of school-men and students of education meeting in New York and Chicago, and the results of the conferences, revised and enlarged, were issued for criticism to all normal schools, schools of education, town, city, and state superintendents whose coöperation could be secured. About seven hundred and fifty schools or individuals participated in this discussion on blanks specially prepared for a detailed and, in the case of the schools, a jointly matured opinion of the

instructors on the issues presented. There has resulted from this process a quantity of material, illuminating in the highest degree not only as to the present conditions throughout the country, but also as to the desires, hopes, and insights of those concerned in this important aspect of education.

The need of something more than a superficial handling of these data was so apparent that Dr. Bagley was asked to devote the coming year to the task of working over the whole topic afresh in the light of these and of such other criticisms as he could secure. This work is now in progress.

It should be said that the provisional and coöperative nature of the above project has been emphasized from the outset and has elicited hearty appreciation. At the same time there has been no thought of conducting a mere symposium. What is needed is that some competent mind shall think thru the problems presented, making sure that all serious points of view are impartially understood and, if possible, reconciled in rational conclusions. Such a service for the professional curricula determining the training of public school teachers has never before been done in this country. Local interests or ideas and administrative concerns have usually governed the making of curricula for training institutions rather than purely educational considerations based upon professional needs as a whole. The results of the study should therefore possess a distinct value.

HENRY S. PRITCHETT.

October 20, 1917.

PART V

DE MORTUIS

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DE MORTUIS

HUGH BOYD

Hugh Boyd was born at Keene, Ohio, August 6, 1835. He was graduated from Ohio University in 1859, valedictorian of his class, and later received the degree of doctor of divinity from the same institution. For several years he taught in the public schools of Ohio, and for some years thereafter was a clergyman in the Methodist Episcopal Church in the same state. In 1871 he became professor of Latin and Greek in Cornell College, Iowa. He served as acting president of Cornell College in 1873–74, as professor of Latin from 1881 to 1906, and was professor emeritus from 1906 to the date of his death. Dr. Boyd was a pioneer in the introduction of the Roman pronunciation of Latin.

The Carnegie Foundation granted Professor Boyd a retiring allowance on June 7, 1906. He died at Mount Vernon, Iowa, March 7, 1917.

HENRY BEDINGER CORNWALL

Henry Bedinger Cornwall was born at Southport, Connecticut, on July 29, 1844. He was graduated from Columbia College in 1864, and from the Columbia School of Mines in 1866. From 1867 to 1868 he pursued special studies in Chemistry at the mining school of Freiberg, Saxony. From 1864 to 1866 he was assistant in general chemistry and metallurgy at the Columbia School of Mines, and from 1868 to 1870 was assistant in general chemistry. After a year or more of scientific work in Mexico he went to Princeton in 1873 as professor of applied chemistry and mineralogy, which position he held until his retirement from active duty in 1910.

The beginning of his work at Princeton was coincident with the establishment there of the John C. Green School of Science, in the development of which he had an important part,—the erection of the chemical building in 1891 being due largely to him.

The Carnegie Foundation granted Professor Cornwall a retiring allowance on June 9, 1910. He died April 1, 1917.

MARY ELLIS

Mary Ellis was born September 21, 1834, and was graduated at Mount Holyoke College, then a Seminary, in August, 1855. In 1877 she received the degree of master of arts from Iowa College. Immediately after her graduation she was recalled to Mount Holyoke as a teacher and served there seventeen years, the last two as acting principal. She was elected principal in June, 1872, but, owing to ill health, was obliged to decline the honor. She spent the following year in Rome, where she assisted in the establishment of an orphanage now known as the "Gould Memorial Home." Returning to America in 1874, she became lady principal of Iowa College at Grinnell, remaining there until 1882. In 1883 she was appointed head of the English Department at Smith

College, but after a year a spinal injury incapacitated her for active service for nine years. From 1892 to 1903 she was professor of psychology and history in Mills College, and again from December, 1904, to June, 1905.

The Carnegie Foundation granted Miss Ellis a retiring allowance on March 28, 1907. She died at Northampton, Massachusetts, May 20, 1917.

WILLIAM I. FLETCHER

William I. Fletcher was born in Burlington, Vermont, April 28, 1844, and received his education in the public schools of Winchester, Massachusetts. After graduating from the high school he became an assistant in the Boston Athenaeum. For three months he was a member of the Sixth Regiment, Massachusetts Volunteers. Later he became librarian at Lawrence, Massachusetts, Waterbury, Connecticut, and of the Wadsworth Athenaeum in Hartford. In 1883 he was called to Amherst College, where he was librarian until his retirement in 1911, as librarian emeritus. He served one year as president of the American Library Association, and for many years conducted in Amherst a school of Library Economy.

He was the author of *Public Libraries in America* (1895); joint editor of *Poole's Index to Periodical Literature;* and editor of continuations of the same (1882–1911); editor of the *American Library Association Index to General Literature* (1893, 1901), and the *Coöperative Index to Periodicals* (1883–1911). In 1884 Amherst College gave him the honorary degree of master of arts.

The Carnegie Foundation granted Mr. Fletcher a retiring allowance on October 19, 1911. He died June 15, 1917.

GEORGE HOLMES HOWISON

George Holmes Howison was born on November 29, 1834, in Montgomery County, Maryland. He took the degree of bachelor of arts, with highest honors, at Marietta College in 1852; received the degree of master of arts from Marietta, *honoris causa*, in 1855; studied at the University of Berlin in 1881–82; and received the degree of doctor of laws from Marietta College in 1883, from the University of Michigan in 1909, and from the University of California in 1914. After service in various secondary schools, Professor Howison was assistant professor of mathematics in Washington University from 1864 to 1866, and Tileston professor of political economy there until 1869. From 1871 to 1879 he was professor of logic and the philosophy of science in the Massachusetts Institute of Technology; in 1879–80 he was lecturer on ethics in Harvard University; and in 1883–84 he was lecturer on philosophy in the University of Michigan. In December, 1883, he was appointed Mills professor of mental and moral philosophy and civil polity in the University of California, and he retired as professor of philosophy, emeritus, July 1, 1909.

Professor Howison was editor of the publications of the Philosophical Union and of the Philosophical Publications of the University of California, coöperating editor of the *Psychological Review*, and American editorial representative of the *Hibbert Journal* of London. The most notable of his own publications were *The Limits of Evolution*, and, with Josiah Royce, *The Conception of God.*

The Carnegie Foundation granted Professor Howison a retiring allowance on June 4, 1909. He died in Berkeley, California, December 31, 1916.

EDWARD SOUTHEY JOYNES

EDWARD SOUTHEY JOYNES was born in Accomac County, Virginia, March 2, 1834. He was graduated from the University of Virginia with the degree of bachelor of arts in 1852, and received the degree of master of arts in the following year. From 1856 to 1858 he studied at the University of Berlin. He received the degree of doctor of laws from Delaware College in 1875, and from William and Mary College in 1878. From 1853 to 1856 he served his alma mater as assistant professor of ancient languages, and in 1858, while still in Europe, was elected professor of Greek and German in William and Mary College. During the Civil War, William and Mary being closed, Professor Joynes was employed from 1861 to 1864 in the Confederate States War Department at Richmond. In 1864 he was placed in charge of the department of modern languages and English in Hollins Institute, Virginia. In 1866 Professor Joynes was chosen to fill the chair of modern languages in Washington College, now Washington and Lee University, to which English was added at his request. He was thus instrumental in securing for English its first recognition in the South as a distinct branch of collegiate study. Dr. Joynes was the last surviving professor of the faculty that served under the administration of General Lee. From 1875 to 1878 he helped to organize and was a member of the first faculty of Vanderbilt University as professor of modern languages and English. From 1878 to 1882 he occupied the same chair in the East Tennessee University, and in 1879 was instrumental in securing its recognition by the legislature as the University of Tennessee. In 1882 he was called to the chair of modern languages and English in South Carolina College —since 1906 the University of South Carolina. In 1888 the department was divided, his work being restricted to German, French, and Spanish. In 1908 he was made professor emeritus.

Besides his college and university work Dr. Joynes was active in the cause of public education in the South. He was a co-worker with Dr. Sears, the first agent of the Peabody Education Board, first in Virginia, then in Tennessee and in South Carolina. He was a member of the first board of school trustees in Columbia, South Carolina, and active in founding the city schools in 1883. He was influential in organizing the graded school system of the state, and was one of the founders and first trustees of the Winthrop Normal and Industrial College for Women. Professor Joynes was the author of a number of grammars and readers for the study of French and German, among

them the *Joynes-Meissner German Grammar*, 1887 (numerous editions), and the *Minimum French Grammar and Reader*, 1892; he was also the editor of numerous editions of the classics in both tongues.

The Carnegie Foundation granted Professor Joynes a retiring allowance December 19, 1907. He died June 18, 1917.

JAMES DAVID MOFFAT

James David Moffat was born at New Lisbon, Ohio, March 15, 1846. He received the degree of bachelor of arts from Washington and Jefferson College in 1869, and was a student in the Princeton Theological Seminary from 1869 to 1871. The degree of doctor of divinity was conferred upon him by Hanover College in 1882, and by Princeton University in 1883. He received the degree of doctor of laws in 1897 from the Western University of Pennsylvania, now the University of Pittsburgh, from the University of Pennsylvania in 1900, and from Missouri Valley College in 1906. He was ordained into the ministry of the Presbyterian Church in 1873, and was immediately elected to succeed his father as pastor of the Second Church of Wheeling, West Virginia, serving continuously until 1882, when he was chosen president of Washington and Jefferson College. Dr. Moffat represented the Presbyterian Church at the Presbyterian Alliance in London in 1888 and again in Liverpool in 1904. In 1905 at Winona Lake, Indiana, he was elected moderator of the General Assembly. He did much to bring about the union of the Presbyterian and the Cumberland Presbyterian churches, and was influential in the revision of the confession of faith and other doctrinal standards of his church. From 1893 to 1905 he was assistant editor of the *Presbyterian Banner*.

The Carnegie Foundation granted Dr. Moffat a retiring allowance on May 15, 1914. He died November 4, 1916, at Washington, Pennsylvania.

JANE CALDWELL NIXON

Jane Caldwell Nixon was born at Shelbyville, Tennessee, on March 3, 1839. When eighteen she married John Nixon of New Orleans, living in that city until his death in 1870, when she went to Europe to educate her two young children, and to fit herself for the work of a teacher. She remained in France and Germany for two years, perfecting herself in the languages and following lectures at the Sorbonne, and then returned to the United States, where for several years she taught in schools in Tennessee, chiefly at Ward Seminary in Nashville, now Ward Belmont College. In 1881 she resumed her residence in New Orleans as a contributor to the *Times-Democrat*, the *Picayune*, and other newspapers, and later acted as the national head of the Women's Department of the Cotton Centennial Exposition. During these years, by extensive travel in Europe and special study at Columbia, Chicago, Harvard, and Oxford Uni-

versities, she prepared herself for further responsibilities, and in 1887 she was called to inaugurate the chair of English Literature in newly founded Sophie Newcomb Memorial College, of Tulane University. This position she held until her retirement in 1907.

The Carnegie Foundation granted Mrs. Nixon a retiring allowance on May 2, 1907. She died at Oconomowoc, Waukesha County, Wisconsin, January 7, 1917.

CALVIN WASSON PEARSON

Calvin Wasson Pearson was born near Dayton, Ohio, May 17, 1841. He received his early education at the Friends' Boarding School, Richmond, Indiana. When this school later became Earlham College he was a member of the first graduating class, taking the degree of bachelor of arts in 1865. He then went to the University of Göttingen for advanced study, receiving from that institution the degree of doctor of philosophy in 1869. On returning he became Professor of Modern Languages at Earlham College, where he remained until 1884. In 1887 he was called to Beloit College as professor of the German language and literature, remaining there until his retirement.

The Carnegie Foundation granted Professor Pearson a retiring allowance on June 21, 1906. He died April 9, 1917.

JAMES MONROE TAYLOR

James Monroe Taylor was born at Brooklyn, New York, August 5, 1848. He was graduated from the University of Rochester in 1868 with the degree of bachelor of arts, and from the Rochester Theological Seminary in 1871. He received the degree of doctor of divinity from Rochester in 1886, and from Yale in 1901, and the degree of doctor of laws from Rutgers in 1894 and from Smith in 1913. Dr. Taylor was ordained to the Baptist ministry in 1871, and, after two years of European study and travel, was pastor in South Norwalk, Connecticut, from 1873 to 1882. From there he was called to Providence, Rhode Island, where he remained until his call to the professorship of ethics and the presidency of Vassar College in 1886. He was made president emeritus in 1914. During the twenty-eight years of his presidency the work and resources of the college were quadrupled, and its influence was greatly increased.

President Taylor was widely known as a speaker, and he published many articles on educational and theological subjects as well as a textbook on *Psychology* (1893). He was the author also of *New World and Old Gospel* (1900), *Practical or Ideal* (1901), *Before Vassar Opened* (1914), and *Vassar* (with E. H. Haight) (1915). He was a member of the Committee of Ten on the relations of secondary schools and colleges, and a trustee of the Carnegie Foundation from 1910 to 1914.

The Carnegie Foundation granted President Taylor a retiring allowance on December 19, 1913. He died in New York City, December 19, 1916.

ERASTUS TEST

Erastus Test was born at Richmond, Indiana, November 12, 1836. He was graduated from Earlham College in 1863, the only member of his class. In 1868 he took the degree of doctor of medicine at the University of Michigan. In 1865 he was called to take charge of the department of mathematics at Earlham College. During the college year he was transferred to the department of natural science, of which he was head for six years, withdrawing in 1872 to practice medicine for three years at Dundee, Illinois. During 1876 he was a member of the department of chemistry at Willamette College. After a number of years as organizer and principal of secondary and normal schools he joined the department of mathematics of Purdue University, where he served until 1910.

The Carnegie Foundation granted Professor Test a retiring allowance February 24, 1910. He died at Lafayette, Indiana, April 21, 1917.

ALFRED EDWARD WHITAKER

Alfred Edward Whitaker was born at Springfield, Massachusetts, January 23, 1842. He was graduated from Amherst College with the degree of bachelor of arts in 1866, and received the master's degree from that institution in 1878. Following his graduation he spent a year in mining in California. A year later Mr. Whitaker was appointed librarian of the Mercantile Library, San Francisco, where he served twenty-five years. In 1894 he became librarian of the University of Colorado, and held that position until his retirement in 1909. He was a member of the American Library Association, the Colorado Library Association, the Colorado State Board of Library Examiners, and the board of trustees of the Boulder public library.

The Carnegie Foundation granted Mr. Whitaker a retiring allowance June 4, 1909. He died in Denver, Colorado, November 20, 1916.

JOHN WILLIAMS WHITE

John Williams White was born at Cincinnati, Ohio, March 5, 1849. He received the degree of bachelor of arts in 1868 and the master's degree in 1871, both from Ohio Wesleyan University. From Harvard he received the degrees of master of arts and of doctor of philosophy in 1877. The degree of doctor of laws was conferred upon him by Wesleyan University in 1896 and by Ohio Wesleyan in 1905; the degree of doctor of literature was conferred upon him by the University of Cambridge in 1909, by Harvard in 1913, and by Princeton in 1914. His production of an edition

of the *Oedipus Tyrannus* of Sophocles, after three years of study in Germany, led to his appointment as tutor in Greek at Harvard in 1874. He was assistant professor of Greek from 1877 to 1884, and professor until his retirement in 1909.

Active in many enterprises for the furthering of classical studies, he was the first chairman of the managing committee of the American School for Classical Studies at Athens, 1881 to 1886, and annual professor there in 1893–94. He was for several years president of the Archaeological Institute of America, a fellow of the American Academy of Arts and Sciences, honorary member of the British Society for the Promotion of Hellenic Studies, and member of the Imperial German Archaeological Institute of Berlin.

Professor White was known widely for his innovations in the teaching of Greek and for his textbooks. He was joint editor of the Harvard *Studies in Classical Philology*, founder and senior editor of the College Series of Greek Authors (30 volumes), 1879, one of the American editors of the Loeb Classical Library, and associate editor of *Classical Philology* (Chicago), and of the *Classical Quarterly and Classical Review* (London). His scholarly research bore fruit in a large number of philological and archaeological monographs, and culminated in two important works, *The Verse of Greek Comedy* (1912), and *The Old Scholia on the Aves of Aristophanes* (1914), a preliminary to an elaborate edition of Aristophanes.

The Carnegie Foundation granted Professor White a retiring allowance on September 30, 1909. He died at Cambridge, Massachusetts, May 9, 1917.

REPORT OF THE TREASURER

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REPORT OF THE TREASURER

To the Chairman and Trustees of the Carnegie Foundation for the Advancement of Teaching:

In accordance with the provisions of Article IX of the By-laws, the chairman of the board of trustees designated Messrs. Patterson, Teele & Dennis, certified public accountants, to audit the accounts of the Foundation for the nine months ending June 30, 1917. The books of the treasurer were accordingly turned over to this firm, whose report follows.

August 9, 1917.

We have audited the accounts of the Carnegie Foundation for the Advancement of Teaching, including the accounts of the General Endowment and the Division of Educational Enquiry, for the nine months ending June 30, 1917.

Income from investments has been duly accounted for and expenditures have been duly authorized and vouched.

The securities representing the investments were produced to us, and the cash in bank and on hand has been verified.

The accompanying Income and Expenditure Account and Balance Sheet are in accordance with the books of the Foundation, and we hereby certify that they exhibit a true and correct statement of the finances at June 30, 1917.

(*Signed*) Patterson, Teele & Dennis,
Accountants and Auditors.

INCOME AND EXPENDITURE

FOR THE NINE MONTHS ENDING JUNE 30, 1917

GENERAL ENDOWMENT

Schedule B *Income*

From Securities in the Endowment Fund		$489,225.00	
From other Investments		30,637.50	
Total Income from Investments			$519,862.50
From Carnegie Corporation of New York			100,000.00
Accumulation of Bond Discount—Net			2,405.58
Interest on Bank Balances			3,594.58
			$625,862.66

Expenditure

RETIRING ALLOWANCES:			
To Professors, Officers, and Widows in Institutions on the Associated List		$462,104.66	
To Professors, Officers, and Widows in Institutions not on the Associated List		85,253.39	$547,358.05
ADMINISTRATION:			
Salaries		$20,711.05	
Traveling Expenses of Trustees, etc.		3,730.28	
Rent		3,661.62	
Postage (proportion)		253.31	
Stationery and Office Supplies (proportion)		397.07	
Professional Fees (Actuarial and others), etc.		3,233.50	
Telephone and Telegraph (proportion)		138.86	
Depreciation of Furniture and Fittings, 10%		538.40	
Rent, Safe Deposit Box		150.00	
Clippings		161.22	
Miscellaneous		797.22	33,772.53
PUBLICATION:			
Printing Eleventh Annual Report (proportion $\frac{7}{8}$)	$5,115.71		
Mailing, Postage, etc. (proportion $\frac{7}{8}$)	608.21	$5,723.92	
Index to Annual Reports (proportion $\frac{1}{3}$)		438.95	
Printing Minutes (proportion $\frac{3}{4}$)		171.83	
Printing copies of circulars, etc.		47.50	
Binding copies of Index to Reports		8.50	6,390.70
Carried forward			$587,521.28

Amount brought forward	$587,521.28
Expenses of the Commission chosen to consider a plan of insurance and annuities	2,461.49
Total Expenditure for nine months ending June 30, 1917	$589,982.77
Increase of Surplus Income for nine months ending June 30, 1917. *Schedule A*	35,879.89
	$625,862.66

INCOME AND EXPENDITURE

FOR THE NINE MONTHS ENDING JUNE 30, 1917

DIVISION OF EDUCATIONAL ENQUIRY

Income

From Securities in the Endowment Fund	$37,500.00
Interest on Bank Balances	227.27
Decrease of Surplus Income, nine months ending June 30, 1917. *Schedule A*	2,522.74
	$40,250.01

Expenditure

GENERAL:		
Salaries	$3,205.98	
Traveling Expenses	6.50	
Professional Fees	337.50	
Rent	1,880.00	
Stationery and Office Supplies (proportion)	397.06	
Postage (proportion)	253.31	
Telephone and Telegraph (proportion)	138.87	
Depreciation of Furniture and Fittings, 10%	159.60	
Rent, Safe Deposit Vault (proportion)	50.00	
Miscellaneous	88.46	$6,517.28
STUDY OF LEGAL EDUCATION:		
Salaries	$3,016.64	
Professional Fees	250.00	
Miscellaneous	99.51	3,366.15
STUDY OF TRAINING OF TEACHERS, MISSOURI:		
Salaries	$7,149.16	
Clerical Help	7,479.86	
Traveling Expenses	1,334.66	
Honoraria and Fees	1,309.65	
Printing and Stationery	229.04	
Postage	38.00	
Rent	305.00	
Miscellaneous Expenses	199.14	
Printing issue of "Curricula"	2,702.86	20,747.37
STUDY OF ENGINEERING EDUCATION:		
Salaries	$5,324.94	
Traveling Expenses	176.40	
Professional Fees	370.00	
Miscellaneous Expenses	182.65	6,053.99
Carried forward		$36,684.79

Amount brought forward			$36,684.79
PUBLICATION:			
Printing Eleventh Annual Report (proportion $\frac{1}{8}$)	$730.81		
Mailing, Postage, etc. (proportion $\frac{1}{8}$)	86.89	$817.70	
Index to Annual Reports (proportion $\frac{2}{3}$)		877.90	
Reprinting Bulletin No. 4, Medical Education in the United States and Canada		1,831.70	
Printing Minutes, etc.		37.92	3,565.22
Total Expenditure for nine months ending June 30, 1917			$40,250.01

STATEMENT OF SECURITIES AND INCOME THEREON
JUNE 30, 1917

Schedule A, Exhibit 1

GENERAL ENDOWMENT

Securities	*Date Acquired*	*Par Value*	*Interest, due Date*	*Book Value*	INTEREST: *Accrued 9 mos. ending June 30, 1917*	INTEREST: *Accrued June 30, 1917*
U.S. Steel Corporation, Series "A" Registered 50 year 5% Gold Bonds. Due April 1, 1951	May 3, 1911, $1,000,000.00 Dec. 2, 1911, $1,000,000.00	$2,000,000.00	Jan. 1 & July 1	$2,000,000.00	$75,000.00	$50,000.00
U.S. Steel Corporation, Series "B" Registered 50 year 5% Gold Bonds. Due April 1, 1951	Dec. 1, 1905	2,850,000.00	Feb. 1 & Aug. 1	2,850,000.00	106,875.00	59,375.00
U.S. Steel Corporation, Series "D" Registered 50 year 5% Gold Bonds. Due April 1, 1951	Dec. 1, 1905	2,850,000.00	Apr. 1 & Oct. 1	2,850,000.00	106,875.00	35,625.00
U.S. Steel Corporation, Series "E" Registered 50 year 5% Gold Bonds. Due April 1, 1951	May 29, 1912	1,000,000.00	May 1 & Nov. 1	1,000,000.00	37,500.00	8,333.33
U.S. Steel Corporation, Series "F" Registered 50 year 5% Gold Bonds. Due April 1, 1951	Dec. 1, 1905	3,300,000.00	June 1 & Dec. 1	3,300,000.00	123,750.00	13,750.00
Baltimore & Ohio R. R. Co. Southwestern Division, First Mtge. 3½% Gold Coupon Bonds. Due July 1, 1925	June 9, 1905, $20,000.00 Dec. 6, 1906, $30,000.00	50,000.00	Jan. 1 & July 1	48,100.65	1,312.50	875.00
Pennsylvania Co. 4% 15-25 year Gold Coupon Loan 1906. Due April 1, 1931	June 9, 1906	50,000.00	Apr. 1 & Oct. 1	49,515.17	1,500.00	500.00
The Lake Shore & Michigan So. Ry. Co. 25 year 4% Gold Coupon Bonds. Due September 1, 1928	June 9, 1906	50,000.00	Mar. 1 & Sept. 1	49,557.12	1,500.00	666.67
Chicago, Burlington & Quincy R.R. Co. Illinois Division, First Mtge. 4% Bonds. Due July 1, 1949	April 1, 1906	50,000.00	Jan. 1 & July 1	50,419.53	1,500.00	1,000.00
Southern Pacific R. R. Co. First Refunding Mtge. 4% Gold Bonds. Due January 1, 1955	Aug. 1, 1906, $20,000.00 Apr. 29, 1908, $30,000.00 Nov. 22, 1915, $20,000.00	70,000.00	Jan. 1 & July 1	64,522.49	2,100.00	1,400.00
Oregon Short Line R. R. Co. 4% Refunding Gold Bonds. Due December 1, 1929	Oct. 3, 1906, $60,000.00 Dec. 12, 1907, $35,000.00 June 12, 1914, $5,000.00	100,000.00	June 1 & Dec. 1	94,475.10	3,000.00	333.33
Oregon Railroad & Navigation Co. 4% Consolidated Mtge. Gold Bonds. Due June 1, 1946	Dec. 6, 1906, $30,000.00 Apr. 30, 1908, $5,000.00 Apr. 10, 1913, $5,000.00 June 13, 1914, $2,000.00 June 17, 1914, $2,000.00 June 25, 1914, $6,000.00	50,000.00	June 1 & Dec. 1	48,844.15	1,500.00	166.67
The City of New York Registered 3½% Corporate Stock for replenishing the Fund for Street & Park Openings. Due May 1, 1954	April 3, 1907	50,000.00	May 1 & Nov. 1	45,892.34	1,312.50	291.67

Northern Pacific—Great Northern, Chicago, Burlington & Quincy R. R. Co. Collateral Trust 4% Joint Bonds. Due July 1, 1921	July 2, 1907, $70,000.00 Oct. 4, 1909, $30,000.00	100,000.00	Jan. 1 & July 1	98,246.27	3,000.00	2,000.00
Central R. R. Co. of New Jersey General Mtge. 5% Bonds. Due July 1, 1987	Aug. 7, 1907	20,000.00	Jan. 1 & July 1	23,942.40	750.00	500.00
Union Pacific R. R. Co. 20 year 4% Convertible Gold Bonds. Due July 1, 1927	Oct. 11, 1907, $35,000.00 Feb. 7, 1908, $58,000.00 June 11, 1908, $7,000.00	100,000.00	Jan. 1 & July 1	92,628.60	3,000.00	2,000.00
Chicago, Indiana & Southern R. R. Co. Consolidated Mtge. 4% 50 year Gold Bonds. Due January 1, 1956	July 10, 1908	55,000.00	Jan. 1 & July 1	50,874.34	1,650.00	1,100.00
Atchison, Topeka & Santa Fe Ry. Co. Transcontinental Short Line First Mtge. 4% 50 year Gold Bonds. Due July 1, 1958	Sept. 3, 1908, $26,000.00 Apr. 10, 1913, $4,000.00 Sept. 6, 1913, $15,000.00 Sept. 29, 1913, $5,000.00	50,000.00	Jan. 1 & July 1	46,594.57	1,500.00	1,000.00
Union Pacific R.R. Co. First Lien and Refunding Mtge. 4% Bonds. Due March 1, 2008	Nov. 9, 1908, $36,000.00 Apr. 10, 1913, $14,000.00	50,000.00	Mar. 1 & Sept. 1	47,899.73	1,500.00	666.67
Chesapeake & Ohio Ry. Co. General Funding and Improvement Mtge. 5% Bonds. Due January 1, 1929	March 12, 1909	50,000.00	Jan. 1 & July 1	50,506.92	1,875.00	1,250.00
Atchison, Topeka & Santa Fe Ry. Co. General Mtge. 4% Bonds. Due October 1, 1995	May 17, 1909, $25,000.00 June 12, 1914, $25,000.00	50,000.00	Apr. 1 & Oct. 1	49,265.23	1,500.00	500.00
Chicago, Milwaukee & St. Paul Ry. Co. 25 year 4% Gold Bonds. Due July 1, 1934	Feb. 3, 1910, $75,000.00 June 16, 1914, $25,000.00	100,000.00	Jan. 1 & July 1	95,038.68	3,000.00	2,000.00
Baltimore & Ohio (Pittsburgh, Lake Erie & W. Virginia System) R. R. Co. Refunding 4% Gold Bonds. Due November 1, 1941	April 20, 1910	55,000.00	May 1 & Nov. 1	51,130.70	1,650.00	366.67
Illinois Central R.R. Co. Louisville Division & Terminal First Mortgage 3½% Gold Bonds. Due July 1, 1953	March 11, 1913	200,000.00	Jan. 1 & July 1	172,758.09	5,250.00	3,500.00
Duluth, Missabe & Northern Ry. Co. General Mtge. 5% 25 year Gold Bonds. Due January 1, 1941	Mar. 11, 1913, $59,000.00 June 12, 1914, $25,000.00 June 13, 1914, $5,000.00 June 17, 1914, $10,000.00 Nov. 13, 1915, $15,000.00	114,000.00	Jan. 1 & July 1	119,498.26	4,275.00	2,850.00
H. C. Frick Coke Co. 5% Pittsburgh, Monongahela First Lien Purchase Money Gold Bonds. Due January 1, 1925, to June 1, 1944	March 13, 1913	300,000.00	Jan. 1 & July 1	309,087.24	11,250.00	7,500.00
Chicago, Milwaukee & St. Paul Railway Co. General and Refunding 4½% Gold Bonds. Due January 1, 2014	June 30, 1914	250,000.00	Apr. 1 & Oct. 1	240,907.72	8,437.50	2,812.50
Carolina, Clinchfield & Ohio Railway Co. First 5% Mtge. Bonds. Due June 1, 1938	Nov. 16, 1914	200,000.00	June 1 & Dec. 1	192,002.25	7,500.00	833.34
Total		$14,164,000.00		$14,091,707.55	$519,862.50	$201,195.85

Schedule A, Exhibit 2

DIVISION OF EDUCATIONAL ENQUIRY

					INTEREST	
Securities	*Date Acquired*	*Par Value*	*Interest due Date*	*Book Value*	*Accrued 9 mos. ending June 30, 1917*	*Accrued June 30, 1917*
Chicago & Northwestern Railway Co. General Mortgage 4% Gold Coupon Bonds. Due November 1, 1987	March 10, 1913	$1,000,000.00	May 1 & Nov. 1	$1,000,000.00	$30,000.00	$6,666.66
Westchester County, New York, Registered Bronx Valley Sanitary Sewer District 4% Bonds. Due January 1, 1933, to January 1, 1974, inclusive	March 10, 1913	250,000.00	Jan. 1 & July 1	250,000.00	7,500.00	5,000.00
Total		$1,250,000.00		$1,250,000.00	$37,500.00	$11,666.66

BALANCE SHEET, JUNE 30, 1917

GENERAL ENDOWMENT

Schedule A — *Assets*

INVESTMENTS. *Exhibit 1*		$14,091,707.55
INTEREST ACCRUED ON INVESTMENTS TO JUNE 30, 1917. *Exhibit 1*		201,195.85
CASH IN BANK AND ON HAND		199,120.28
SUNDRY ACCOUNTS RECEIVABLE		77.66
OFFICE FURNITURE AND FITTINGS	$7,178.71	
Less Reserve for Depreciation	6,268.33	910.38
		$14,493,011.72

Funds, Accumulations, etc.

ENDOWMENT FUND		$13,000,000.00
ENDOWMENT ACCUMULATIONS		150,000.00
CARNEGIE FOUNDATION, DIVISION OF EDUCATIONAL ENQUIRY		4,685.60
SUNDRY ACCOUNTS PAYABLE		2,550.90
INCOME AND EXPENDITURE ACCOUNT:		
Accumulations to September 30, 1916	$1,299,895.33	
Add Increase for the nine months ending June 30, 1917. *Schedule B*	35,879.89	1,335,775.22
		$14,493,011.72

THE DIVISION OF EDUCATIONAL ENQUIRY

Schedule A — *Assets*

INVESTMENTS. *Exhibit 2*		$1,250,000.00
INTEREST ACCRUED ON INVESTMENTS TO JUNE 30, 1917. *Exhibit 2*		11,666.66
CASH IN BANK AND ON HAND		14,277.49
CARNEGIE FOUNDATION, GENERAL ACCOUNT		4,685.60
SUNDRY ACCOUNTS RECEIVABLE		194.10
OFFICE FURNITURE AND FITTINGS	$2,128.06	
Less Reserve for Depreciation	629.87	1,498.19
		$1,282,322.04

Funds, Accumulations, etc.

ENDOWMENT FUND		$1,250,000.00
SUNDRY ACCOUNTS PAYABLE		7,063.94
INCOME AND EXPENDITURE ACCOUNT:		
Accumulations to September 30, 1916	$27,780.84	
Less Decrease for the nine months ending June 30, 1917. *Schedule B*	2,522.74	25,258.10
		$1,282,322.04

The treasurer has submitted from time to time to the executive committee statements of receipts and expenditures, which were printed and sent to all trustees. These statements, together with the report of the auditing firm just quoted, give a complete account of the financial operations of the Foundation for the period covered by this report.

Robert A. Franks, *Treasurer.*

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THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

THIRTEENTH ANNUAL REPORT
OF THE
PRESIDENT AND OF THE TREASURER

576 FIFTH AVENUE
NEW YORK CITY
1918

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OFFICERS OF ADMINISTRATION AND TRUSTEES

TRUSTEES

EXECUTIVE COMMITTEE

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THE BUSINESS OF THE YEAR

REPORT OF THE PRESIDENT

To the Chairman and the Trustees of the Carnegie Foundation for the Advancement of Teaching:

In accordance with the by-laws, I present herewith the Thirteenth Annual Report of the President of the Foundation, for the year ending June 30, 1918.

In addition to the usual current business of the Foundation, the year was devoted largely to study and discussion of the reorganization of the Foundation's existing pension system and the inauguration of its new plan of insurance and annuities.

The general study of pensions has continued without abatement, and a bulletin upon Pensions for Public School Teachers has been prepared and published at the request of the committee on salaries, tenure, and pensions of the National Education Association.

For the Division of Educational Enquiry the report includes a statement of the publication of the study of Engineering Education, prepared at the request of a joint committee of the national engineering societies, of the prospective early publication of studies of the training of teachers in Missouri and of legal aid societies in their relation to legal education, and of further progress in the comprehensive study of legal education itself.

ENDOWMENT, RESERVES, INCOME, AND EXPENDITURE

The trustees held in trust on June 30 the following securities, given at their face value

(*a*) General Endowment	
United States Steel Corporation 50 year 5 per cent Gold Bonds	$12,000,000.00
Other securities	1,192,000.00
(*b*) Division of Educational Enquiry	1,250,000.00
(*c*) Reserve Fund Number One	3,777,000.00
(*d*) Reserve Fund Number Two	70,000.00
(*e*) Emergency Reserve	105,000.00
Total	$18,394,000.00

During the year the trustees received for general purposes a total income of $1,173,754.16, of which $673,754.16 came from the general endowment and $500,000 from the Carnegie Corporation of New York, including the interest on two millions of the endowment of the Foundation not yet paid in; and an income of $50,197.37 from the endowment of the Division of Educational Enquiry. The expenditures have been as follows:

(*a*) General Endowment		
Retiring Allowances and Pensions in Institutions on the Associated List		
Officers and Teachers	$565,892.20	
Widows	114,963.51	$680,855.71
Retiring Allowances and Pensions granted to Individuals		
Officers and Teachers	$90,784.61	
Widows	27,882.69	118,667.30
Expenses of Administration		44,031.44
Publication		7,082.59
Study of Insurance and Annuities		3,548.83
Total		$854,185.87
(*b*) Division of Educational Enquiry		
General		$7,904.62
Study of Legal Education		5,664.96
Study of the Training of Teachers		26,999.26
Study of Engineering Education		5,761.22
Publication		4,706.87
Total		$51,036.93

MEETINGS OF THE TRUSTEES

Two meetings of the trustees were held during the year — the twelfth annual meeting on November 21, 1917, and a special meeting on April 22, 1918.

In the annual election of officers President Hadley of Yale University was chosen chairman, President King of Oberlin College, vice-chairman, and President Thwing of Western Reserve University, secretary. President Hadley and President Schurman were elected to succeed themselves on the executive committee for a term of three years. President Slocum of Colorado College, President McClelland of Knox College, and Chancellor Craighead of North Dakota, having retired from their administrative positions, tendered their resignations as trustees of the Foundation. These were accepted with expressions of appreciation for their services as members and officers of the board.

Their places were filled by the election of Sir Robert Falconer, President of Toronto University, James Hampton Kirkland, Chancellor of Vanderbilt University, and Thomas William Lamont, of New York City, as members of the board. The fourth vacancy on the board was not filled.

The President presented a communication from the Carnegie Corporation announcing its appropriation of one million dollars for the establishment of the Teachers Insurance and Annuity Association of America, and suggesting that the request of

the Foundation for additional resources should be definite in amount and limited to a specified time.

After full consideration, the President was authorized to convey to the trustees of the Corporation a request for their assistance upon the following terms:

The Foundation shall begin the accumulation for ten years of a special reserve fund, based upon its present surplus of approximately $1,000,000. To this reserve fund the Corporation shall contribute $5,000,000 par value of bonds, payments being made at the convenience of the Corporation as of January 1, 1918, with interest at four per cent.

The Corporation shall pay into the treasury of the Foundation for the same period of ten years $600,000 annually, at the convenience of the Corporation. The entire annual income of the Foundation not required in the judgment of the trustees for the payment of pensions is to be carried at the end of each year to the reserve fund.

The reserve thus created shall be available at the end of ten years for the discharge of the obligations of the Foundation as they may accrue thereafter. Should the experience of the next fifteen years prove that some further adjustment is necessary at the period of maximum load, the responsibility for such adjustment rests with the Foundation. Should the reserve prove greater than is demanded for this purpose, the residuum shall be added to the permanent endowment of the Foundation to be used for its corporate purposes.

These proposals being accepted by the Carnegie Corporation,—"upon condition that the trustees of the Carnegie Foundation shall now and hereafter from time to time as may prove necessary revise their rules so that the pensions provided for thereby for the teaching forces of the institutions coming under their rules as of November 17, 1915, shall not exceeed the financial resources of the Carnegie Foundation,"—it was voted that the president and the executive committee be instructed to present to the trustees plans for carrying out this arrangement.

The trustees also passed the following resolutions:

> That the Chairman and Secretary be requested to convey to the Trustees of the Carnegie Corporation an expression of appreciation of the Trustees of the Carnegie Foundation for the patient and thorough consideration which has been given to the problems of the Foundation, as well as for the generous aid which the Corporation proposes to extend in making possible their adequate and satisfactory solution.
>
> We congratulate the colleges and universities of the United States and of Canada for the offerings which they are making of their teachers, their sons, and their students to the great war, in securing the freedom of the mind of man, the enlarging of human vision, and the deeper appreciation of human rights—purposes which are among the undying aims and endeavors of the higher education.

The special meeting of the trustees on the 22d of April was attended by nineteen members, the others having been excused from attendance by reason of public duties.

The executive committee presented, thru the President, "A Statement to the Teachers in the Associated Colleges and Universities," which was approved and ordered sent to the teachers in the associated colleges and universities. A copy of this statement is appended to this report, pages 41–56.

There was also submitted a revision of the "Rules for the Admission of Institutions and for the Granting of Retiring Allowances." The President and the executive committee were empowered to embody the various suggestions made by the members, and to publish the statement as the Rules of the Foundation. A copy of the Rules, as thus approved, is appended to this report, pages 75–95.

The trustees also passed the following resolutions:

> That the trustees of the Carnegie Foundation understand that the Carnegie Corporation, after the organization of the Teachers Insurance and Annuity Association, will adopt a resolution in accordance with the statement of President Pritchett in his Twelfth Annual Report, reading as follows: "As soon as a group of policy-holders has been formed sufficiently large to be representative of the college and university teachers of the United States and Canada, the Carnegie Corporation, in conference with the interested parties, will proceed to provide the machinery by which the policy-holders, thru representatives selected by them, shall participate in the management of the Association and the election of trustees."
>
> That it is the intention of the trustees of the Foundation to see that proper provision is made for meeting all reasonable overhead charges of the Teachers Insurance and Annuity Association, in case sufficient means are not available for that purpose from the funds given by the Carnegie Corporation.
>
> That the trustees, without imposing a legal obligation on the Foundation, state its intention to provide from its income, if necessary, such amounts as may be required to secure to teachers in the associated colleges and universities an average return of four and one-half per cent on the payments made by them to the Teachers Insurance and Annuity Association of America for the purchase of deferred annuities — said sums to be paid at the time of retirement or in case of death.

THE EXECUTIVE COMMITTEE

The executive committee met six times during the year. Full records of these meetings with detailed reports of the current finances and of the establishment of the two reserve funds prescribed by the trustees and of an emergency reserve were forwarded to the trustees after each meeting. The retiring allowances and pensions voted by the committee during the year are given in full on later pages of this report.

Besides presenting the matters of business discussed in the meetings of the trustees, and reporting upon the progress of the studies of the Division of Educational Enquiry, the committee expressed regret that the Foundation was unable to undertake various educational studies which it was asked to make; namely, studies of the

tenure of teachers, the utilization of university buildings, scholarships and loans in universities and colleges, the training of vocational teachers under the Smith-Hughes Act, and public education in morals.

In response to enquiries concerning the interpretation of the rules for granting allowances the committee replied that a teacher who was in receipt of a retiring allowance was not expected to give extension courses for which salaries are paid, and adopted the following resolution:

> When during the continuance of the war, by reason of the absence of a teacher for the purpose of engaging in the military, naval, or civil service of the Government, an institution deems it desirable to recall to active service a teacher in receipt of a retiring allowance, such action may be taken with the approval of the executive committee of the Foundation, provided the retiring allowance of such teacher be suspended during the time when he is recalled to active service.

ALLOWANCES GRANTED DURING THE YEAR

1. IN INSTITUTIONS ON THE ASSOCIATED LIST

ON THE BASIS OF AGE

Institution	*Name*	*Academic Title*	*Date Effective*
AMHERST COLLEGE	BENJAMIN KENDALL EMERSON	Professor of Mineralogy and Geology	*June* 21, 1917
	JOHN FRANKLIN GENUNG	Professor of Literature and Biblical Interpretation	*June* 21, 1917
	JOHN MASON TYLER	Professor of Biology	*June* 21, 1917
BATES COLLEGE	FRANKLIN MELLEN DREW	Treasurer	*Oct.* 24, 1917
COLORADO COLLEGE	MARIANNA BROWN	Registrar	*Nov.* 16, 1917
	WILLIAM FREDERICK SLOCUM	President	*Oct.* 1, 1917
DARTMOUTH COLLEGE	ROBERT FLETCHER	Director of Thayer School and Professor of Civil Engineering	*July* 1, 1918
	CHARLES HENRY MORSE	Professor of Music	*Feb.* 1, 1918
GRINNELL COLLEGE	CHARLES NOBLE	Professor of English Language and Rhetoric	*Sept.* 1, 1918
HOBART COLLEGE	WILLIAM CRANSTON LAWTON	Professor of Literature	*July* 1, 1918
KNOX COLLEGE	THOMAS McCLELLAND	President	*Sept.* 1, 1917
OBERLIN COLLEGE	JOHN ROAF WIGHTMAN	Professor of Romance Languages and Literature	*Sept.* 1, 1918
STEVENS INSTITUTE OF TECHNOLOGY	SAMUEL D. GRAYDON	Assistant Professor of Descriptive Geometry and Mechanical Drawing	*Sept.* 1, 1918
TULANE UNIVERSITY	FREDERICK WESPY	Professor of German	*Oct.* 1, 1918
UNIVERSITY OF CALIFORNIA	GEORGE CUNNINGHAM EDWARDS	Professor of Mathematics	*July* 1, 1918
	FREDERICK SLATE	Professor of Physics	*July* 1, 1918
UNIVERSITY OF MICHIGAN	ROBERT E. BUNKER	Professor of Law	*June* 28, 1918
UNIVERSITY OF MISSOURI	WOODSON MORSE	Professor of Medicine	*Oct.* 1, 1917
UNIVERSITY OF PENNSYLVANIA	SIMON N. PATTEN	Professor of Political Economy	*July* 1, 1917
UNIVERSITY OF TORONTO	ROBERT RAMSAY WRIGHT	Professor of Biology	*Oct.* 1, 1917
UNIVERSITY OF VERMONT	STEPHEN G. BARNES	Professor of Biblical History	*Sept.* 1, 1918
VASSAR COLLEGE	JEAN CHARLEMAGNE BRACQ	Professor of Modern Languages	*Sept.* 1, 1918
WASHINGTON AND JEFFERSON COLLEGE	J. ADOLPH SCHMITZ	Professor of German	*July* 1, 1918
WESTERN RESERVE UNIVERSITY	FRANK P. WHITMAN	Professor of Physics and Astronomy	*Aug.* 1, 1918
WILLIAMS COLLEGE	GEORGE MORITZ WAHL	Professor of German	*July* 1, 1917
YALE UNIVERSITY	FRANK AUSTIN GOOCH	Professor of Chemistry	*July* 1, 1918

ON THE BASIS OF DISABILITY

DRAKE UNIVERSITY	HILL M. BELL	President	*July* 1, 1918
INDIANA UNIVERSITY	LOUISE MAXWELL	Assistant Librarian	*June* 1, 1918
JOHNS HOPKINS UNIVERSITY	EDWARD H. SPIEKER	Collegiate Professor of Greek	*d.Feb.*20,1917
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	CHARLES FRANCIS ADAMS CURRIER	Professor of History and Political Science	*June* 1, 1918
UNIVERSITY OF PENNSYLVANIA	AMOS PEASLEE BROWN	Professor of Geology	*Sept.* 1, 1917
PURDUE UNIVERSITY	MICHAEL JOSEPH GOLDEN	Professor and Director of Department of Practical Mechanics	*Sept.* 1, 1917

WIDOWS' PENSIONS

Institution	*Name*	*Husband's Title*	*Date Effective*
Beloit College	Martha J. Smith	Professor of Mathematics and Physics	*May* 15, 1918
Bowdoin College	Charlotte Johnson Houghton	Professor of Latin	*Nov.* 22, 1917
	Prudence M. Hyde	President	*June* 30, 1917
	Francis Robinson Johnson	Professor of Modern Languages	*Feb.* 8, 1918
Columbia University	Grace Lefferts Hutton	Professor of Mechanical Engineering	*June* 14, 1918
	Mary Constance Wheeler	Professor of Greek Art and Archaeology	*July* 1, 1918
Cornell University	Myra R. Crandall	Professor of Railroad Engineering	*Sept.* 26, 1917
	Annie Smith Harris	Librarian	*Nov.* 12, 1917
Johns Hopkins University	Mabel Mall	Professor of Anatomy	*Nov.* 18, 1917
	Adelaide M. Spieker	Collegiate Professor of Greek	*July* 1, 1918
Lehigh University	Ada Louise Warner Klein	Professor of Mechanical Engineering and Dean	*Sept.* 1, 1918
McGill University	Mary Ellen McLeod	Professor of Geodesy	*Dec.* 27, 1917
University of Pennsylvania	Maria B. Easton	Professor of Comparative Philology	*Sept.* 21, 1917
	Annie Mosser Learned	Professor of Germanic Language and Literature	*Aug.* 5, 1917
University of Toronto	Isabel Fletcher	Professor of Latin	*July* 16, 1917
Tulane University	Mrs. Garvin Dugas Shands	Professor of Common Law	*July* 16, 1917
University of Virginia	Eleanor A. Kent	Professor of English Literature	*Oct.* 6, 1917
Washington University	Harriet B. Chaplin	Chancellor	*Apr.* 12, 1918
	Catherine Ashbrook Engler	Treasurer	*On termination of salary*
Williams College	Elizabeth A. Mears	Professor of Chemistry	*June* 23, 1917
Yale University	Martha Burt Wright	Dean	*Apr.* 17, 1918

2. IN INSTITUTIONS NOT ON THE ASSOCIATED LIST

RETIRING ALLOWANCE

Institution	*Name*	*Academic Title*	*Date Effective*
University of Mississippi	Robert Burwell Fulton	Chancellor	*Aug.* 1, 1918

WIDOWS' PENSIONS

Institution	*Name*	*Husband's Title*	*Date Effective*
Council of Higher Education, Newfoundland	Anna Hanrahan	Superintendent of Education	*Dec.* 1, 1916
Hanover College	Virginia B. McComb	Professor of History and Political Science	*Jan.* 19, 1918
Queen's University School of Mining	Mae Thompson Dupuis	Dean	*Aug.* 21, 1917
Randolph-Macon Woman's College	L. W. Sharp	Professor of Latin and Greek	*Sept.* 15, 1917
University of Nebraska	Ella A. Andrews	Chancellor	*Dec.* 1, 1917

FINANCIAL DATA CONCERNING ALLOWANCES BECOMING OPERATIVE DURING THE FISCAL YEAR

July 1, 1917, to June 30, 1918

PARTICIPANTS	*Number of Allowances*	*Average Age at Date of Retirement*	*Average Length of Service*	*Number of Deaths during Year*	*Average Amount of Allowance*	Total becoming operative during the Year
Professors and Officers in Institutions on the Associated List	38	65.5	30.1	19	$2,099.74	$79,790.00
Professors and Officers in Institutions not on the Associated List	2	72	36	6	2,150.00	4,300.00
Widows of Professors and Officers in Institutions on the Associated List	17			5	1,080.00	18,360.00
Widows of Professors and Officers in Institutions not on the Associated List	5			2	941.00	4,705.00
Total	62			32	General Average of Retiring Allowances $1,728.31	107,155.00

ALLOWANCES NOW IN FORCE

Financial Summary on June 30, 1918

Recipients	Number of Allowances in Force				Average Age at Date of Retirement			Average Length of Service			Average Amount of Allowance			Total Grant in Force June 30, 1918
	On basis of age	*On basis of service*	*On basis of disability*	*Total*	*Retired on basis of age*	*On basis of service*	*On basis of disability*	*On basis of age*	*On basis of service*	*On basis of disability*	*On basis of age*	*On basis of service*	*On basis of disability*	
Professors and Officers in Associated Institutions..	236	40	18	294	67.68	61.90	56.44	32.88	31.65	27.94	$1,995.27	$1,712.00	$1,360.27	$563,850
Professors and Officers not in Associated Institutions	36	17	5	58	69.61	63.88	59.40	29.44	33.58	27.60	1,453.61	1,302.64	1,726.00	83,105
Widows of Professors and Officers in Associated Institutions				123							$980.24			120,570
Widows of Professors and Officers not in Associated Institutions........				35							805.71			28,200
Total				510							General Average of Retiring Allowances $1,560.24			795,725

TOTAL NUMBER OF ALLOWANCES OPERATIVE

Year	Institutions	Age	Service	Permanent Disability	Temporary Grants	Widows	Total	Deduct		Net Increase	Allowances & Pensions in Force at End of Year
								For Deaths	For Discontinuances		
1906[1]	Associated Institutions	29	13	2	2	6	52			52	
	Non-Associated Institutions	8	4		3		15	1		14 66	66
1906-7	Associated Institutions	35	16	2	3	7	63	10	3	50	
	Non-Associated Institutions	20	12	1	2	4	39	7	1	31 81	147
1907-8	Associated Institutions	19	17	1	3	12	52	10	1	41	
	Non-Associated Institutions	8	9		1	6	24	2	1	21 62	209
1908-9	Associated Institutions	34	17	1	9	10	71	6	4	61	
	Non-Associated Institutions	13	9	3	4	2	31	3	2	26 87	296
1909-10	Associated Institutions	28	7	3	6	14	58	11	10	37	
	Non-Associated Institutions	11	3	1	2	5	22	8	5	9 46	342
1910-11	Associated Institutions	26	2	5	4	7	44	15	6	23	
	Non-Associated Institutions	3	1	3		4	11	4	3	4 27	369
1911-12	Associated Institutions	25		4	3	11	43	9	4	30	
	Non-Associated Institutions	2	1			4	7	9		2[2] 28	397
1912-13	Associated Institutions	25	1	2		7	35	15	2	18	
	Non-Associated Institutions	1				2	3	12		9[2] 9	406
1913-14	Associated Institutions	22		2		12	36	12		24	
	Non-Associated Institutions	4		1		3	8	4		4 28	434
1914-15	Associated Institutions	19		1		14	34	21		13	
	Non-Associated Institutions	1				3	4	6		2[2] 11	445
1915-16	Associated Institutions	31		2		13	46	27		19	
	Non-Associated Institutions					4	4	4		0 19	464
1916-17[3]	Associated Institutions	8		2		21	31	13		18	
	Non-Associated Institutions			2		1	3	5		2[2] 16	480
1917-18	Associated Institutions	33		5		17	55	24		31	
	Non-Associated Institutions	2				5	7	8		1[2] 30	510
	Totals	407	112	43	42	194	798	246	42		510

[1] July 1 to September 30. [2] Decrease. [3] October 1 to June 30.

GEOGRAPHICAL DISTRIBUTION OF ALLOWANCES OPERATIVE

State, Territory, or Province	Number of Allowances granted			Deaths	Number of Allowances in Force
	In Institutions on the Associated List	In Institutions not on the Associated List	Total		
NORTH ATLANTIC DIVISION					
Maine	14	3	17	7	10
New Hampshire	10	1	11	3	8
Vermont	6		6	3	3
Massachusetts	101	4	105	28	77
Rhode Island		2	2	1	1
Connecticut	43		43	15	28
New York	106	8	114	36	78
New Jersey	23	1	24	10	14
Pennsylvania	41	8	49	16	33
Total	344	27	371	119	252
SOUTH ATLANTIC DIVISION					
Maryland	10	1	11	1	10
District of Columbia		8	8	3	5
Virginia	14	10	24	13	11
West Virginia		7	7	2	5
North Carolina		8	8	4	4
South Carolina		7	7	4	3
Georgia		4	4	2	2
Florida		4	4		4
Total	24	49	73	29	44
SOUTH CENTRAL DIVISION					
Kentucky	6	4	10	4	6
Tennessee		8	8	5	3
Alabama		6	6	3	3
Mississippi		3	3		3
Louisiana	13		13	4	9
Total	19	21	40	16	24
NORTH CENTRAL DIVISION					
Ohio	24	14	38	12	26
Indiana	20	6	26	4	22
Illinois	3	6	9	4	5
Michigan	15	3	18	5	13
Wisconsin	23		23	9	14
Minnesota	23		23	5	18
Iowa	10	9	19	6	13
Missouri	26	2	28	9	19
North Dakota		4	4	3	1
Nebraska		1	1	1	
Kansas		4	4	1	3
Total	144	49	193	59	134
WESTERN DIVISION					
Montana		2	2	1	1
Colorado	5	3	8	1	7
California	27	1	28	10	18
Oregon		5	5	2	3
Total	32	11	43	14	29
THE DOMINION OF CANADA					
Ontario	12	4	16	3	13
Quebec	11		11	4	7
Nova Scotia	3		3		3
New Brunswick		3	3	1	2
Prince Edward Island		1	1		1
Total	26	8	34	8	26
NEWFOUNDLAND					
		3	3	2	1
Total		3	3	2	1
Grand Total	589	168	757	247	510

TOTAL EXPENDITURE IN ALLOWANCES

Year	Institutions	*Number of Institutions*	*Number of Retired Teachers on Roll*	*Average Age at Retirement on Basis of Age*	*Amount of Retiring Allowances Paid*	*Number of Widows' Pensions*	*Amount of Widows' Pensions Paid*	*Total Load of Allowances and Pensions*	*Total Amount Paid*
1906[1]	Associated	52	44	71.45	$15,478.53	6	$1,124.97	$77,785	$16,603.50
	Non-Associated	32	12	71.37	6,474.53		124.98	19,100	6,599.51
1906–7	Associated	55	90	71.61	77,574.09	12	8,039.06	152,205	85,613.15
	Non-Associated	48	37	73.45	47,654.11	4	2,420.00	55,700	50,074.11
1907–8	Associated	62	116	71.44	146,140.47	23	14,989.48	215,330	161,129.95
	Non-Associated	59	52	72.39	80,134.26	10	5,378.20	79,515	85,512.46
1908–9	Associated	67	162	69.7	206,472.57	33	24,545.00	320,715	231,017.57
	Non-Associated	62	54	69.8	104,536.66	12	8,316.67	112,770	112,853.33
1909–10	Associated	71	189	69.6	291,403.98	47	33,795.04	385,315	325,199.02
	Non-Associated	77	81	70.6	132,497.51	17	12,137.77	125,970	144,635.28
1910–11	Associated	72	208	69.5	341,899.16	53	46,720.17	420,790	388,619.33
	Non-Associated	77	84	70.1	122,215.10	21	16,044.57	128,145	138,259.67
1911–12	Associated	72	220	69.3	388,338.27	62	53,646.37	473,680	441,984.64
	Non-Associated	68	80	69.7	108,329.55	23	20,045.84	127,800	128,438.39
1912–13	Associated	73	245	69	416,626.37	67	62,360.77	507,420	478,987.14
	Non-Associated	63	71	69.2	102,814.10	23	18,588.77	115,640	121,402.87
1913–14	Associated	73	259	68.7	444,966.52	77	69,523.06	550,420	514,489.58
	Non-Associated	66	72	69.1	99,984.68	26	20,389.51	122,595	120,374.19
1914–15	Associated	73	259	66.9	473,969.38	90	80,152.31	563,335	554,121.69
	Non-Associated	65	68	68	99,850.81	28	20,752.47	117,830	120,603.28
1915–16	Associated	74	272	66.3	479,923.91	94	90,317.32	606,535	570,241.23
	Non-Associated	66	64	71	83,839.91	32	33,019.30	114,695	116,859.21
1916–17[2]	Associated	71	274	67.99	345,213.79	112	116,890.87	469,249[2]	462,104.66
	Non-Associated	64	62	69.23	62,054.05	32	23,199.34	85,271[2]	85,253.39
1917–18	Associated	71	294	67.68	565,892.20	123	114,963.51	684,420	680,855.71
	Non-Associated	66	58	69.61	90,784.61	35	27,882.69	111,305	118,667.30

[1] July 1 to September 30.

[2] October 1 to June 30.

TOTAL LOAD OF ALLOWANCES ASSUMED

Year	Institution	Age	Service	Permanent Disability	Temporary Grants	Widows	Total	Deduct: For Deaths	Deduct: For Discontinuances	Net Increase		Annual Load at End of Fiscal Year
1906[1]	Associated	$40,630	$26,405	$2,465	$2,750	$5,535	$77,785			$77,785		
	Non-Associated	8,200	8,220		4,015		20,435	$1,335		19,100	$96,885	$96,885
1906-7	Associated	52,960	28,455	3,000	3,870	6,165	94,450	16,160	$3,870	$74,420		
	Non-Associated	24,240	14,955	1,100	2,400	2,670	45,365	7,750	1,015	36,600	111,020	207,905
1907-8	Associated	33,280	27,610	1,800	5,000	10,480	78,170	13,375	1,670	$63,125		
	Non-Associated	9,530	12,830		1,500	3,905	27,765	3,350	600	23,815	86,940	294,845
1908-9	Associated	62,930	33,280	1,525	14,340	9,145	121,220	9,755	6,080	$105,385		
	Non-Associated	14,865	14,995	5,065	5,100	1,695	41,720	5,465	3,000	33,255	138,640	433,485
1909-10	Associated	59,950	10,795	4,515	10,080	14,870	100,210	18,270	17,340	$64,600		
	Non-Associated	16,860	4,610	1,500	3,300	5,060	31,330	11,230	6,900	13,200	77,800	511,285
1910-11	Associated	50,096	3,435	6,580	4,800	6,595	71,505	26,950	9,080	$35,475		
	Non-Associated	4,070	1,615	5,070		2,955	13,710	6,735	4,800	2,175	37,650	548,935
1911-12	Associated	51,145		5,455	3,800	11,035	71,435	13,745	4,800	$52,890		
	Non-Associated	5,600	1,200			3,600	10,400	10,745		345[2]	52,545	601,480
1912-13	Associated	51,435	2,655	2,325		5,725	62,140	26,600	1,800	$33,740		
	Non-Associated	1,000				2,000	3,000	15,160		12,160[2]	21,580	623,060
1913-14	Associated	46,510		2,860		13,265	62,635	19,635		$43,000		
	Non-Associated	7,810		1,820		1,650	11,280	4,325		6,955	49,955	673,015
1914-15	Associated	41,350		775		13,050	55,175	42,260		$12,915		
	Non-Associated	2,300				1,865	4,165	8,930		4,765[2]	8,150	681,165
1915-16	Associated	70,400		2,225		12,445	85,070	41,870		$43,200		
	Non-Associated					2,985	2,985	6,120		3,135[2]	40,065	721,230
1916-17[3]	Associated	14,900		2,310		23,055	40,265	21,135		$19,130		
	Non-Associated			3,820		500	4,320	5,320		1,000[2]	18,130	739,360
1917-18	Associated	70,545		9,245		18,360	98,150	39,780		$58,370		
	Non-Associated	4,300				4,705	9,005	11,010		2,005	56,365	795,725

[1] July 1 to September 30. [2] Decrease. [3] October 1 to June 30.

PUBLICATIONS OF THE FOUNDATION

The following publications were issued during the year:

The Twelfth Annual Report of the President and of the Treasurer, *154 pages*. 1917.

Including discussions of insurance and annuities for college teachers, with the report of a Commission on Insurance and Annuities and the charter of the Teachers Insurance and Annuity Association of America; descriptions of current developments in the general field of pensions; and reports of progress in the Foundation's educational enquiries.

Bulletin Number Eleven. Engineering Education, *135 pages*. 1918.

A study, by Charles Riborg Mann, at the request of a joint committee of the national engineering societies, of the development of engineering schools in the United States, —their aims, resources, administration, curricula, instruction, and student progress; the chief problems of engineering education,—admission, curricula, courses, testing, and grading; with suggestions concerning the curriculum, specialization, teaching, and the professional spirit.

Bulletin Number Twelve. Pensions for Public School Teachers, *90 pages*. 1918.

A report, by Clyde Furst and I. L. Kandel, for the Committee on Salaries, Pensions, and Tenure of the National Education Association, describing all existing systems of pensions for teachers, discussing their limitations in the light of experience and the fundamental principles of pensions, and presenting an illustration of a financially and socially sound state system of pensions for teachers, based upon a complete census of the teachers in the State of Vermont.

PART II

THE INAUGURATION OF THE CONTRIBUTORY SYSTEM

THE PHILOSOPHY OF THE OLD AGE PENSION

The Carnegie Foundation had its origin in Mr. Carnegie's interest in the cause of education and in his desire to be of service to the teachers of the United States, Canada, and Newfoundland. For this purpose he provided a noble endowment of fifteen million dollars. He chose trustees to administer the income of his gift, leaving to their judgment the development of the Foundation along such lines as time and experience might indicate.

One of the most distinguished of this group — William Rainey Harper — died before the first meeting of the board. Others retired from its membership when they surrendered their academic positions, but there still remain on the board fifteen members of the original group chosen by Mr. Carnegie.

To these trustees the memories of the early days of their trusteeship are still fresh. To them the personality of the Founder, his optimism for the future, his faith in human progress, his sincere desire to do the best with the great fortune his genius had brought together were part and parcel of these early associations.

The annual meetings of the Board are held on the third Wednesday in November, a date which falls near the birthday anniversary of Mr. Carnegie. It was his custom during all the earlier years to meet the members of the Board at luncheon between the morning and afternoon sessions. At these gatherings he was able to express freely his conception of the scope and work of the Foundation. These conferences will long be remembered by the trustees as occasions upon which they came away full of the hope and the faith of which the Founder was so triumphant a representative. At that time there was in the minds of the Founder and of the trustees no other conception of a teachers pension system than a non-contributory pension for as large a number of teachers as the endowment would provide. A pension paid by the Foundation to the old teacher was assumed to be the basis of the permanent principle of administration.

"Quid non longa valebit permutare dies?" or, as Mr. Carnegie was in the habit of quoting to us from one of his own poets, "Nae man can tether time or tide." Time has moved swiftly with the Carnegie Foundation. The lapse of twelve years finds it unchanged in purpose, but working thru methods widely different from those with which it began.

In no respect did Mr. Carnegie show wiser foresight than in the freedom given to his trustees to modify, or under certain circumstances to change completely, the methods of applying the great endowments entrusted to them. To the trustees of the Carnegie Foundation was committed the solution of the problem of pensions for college teachers. The pension problem, not alone for teachers but for all groups in the body politic, became within a few years thereafter in the United States and Canada a social and economic question of the first importance. The trustees were called on to solve a problem of far-reaching importance. In their study of it they came in

time to a conception of a pension system widely different from that with which they started.

In this process of transformation the Founder himself has taken a keen interest. It is a source of the deepest satisfaction that he has lived to approve step by step the process under which the plan of administration of the Foundation has been modified in the light of experience and study. In his judgment these are changes in methods only, whose object is to serve in a deeper and larger way the purpose for which the Foundation came into existence.

The steps by which the final solution has been reached are fully set forth in the reports and bulletins of the Foundation. They can best be studied in these publications. The solution has taken practical form in the establishment of the Teachers Insurance and Annuity Association of America, organized under the laws of the State of New York. Thru this agency the teachers in colleges of English-speaking North America may, within their reasonable ability to pay, secure protection against dependence both for themselves and for their families. They obtain from this agency individual contracts that are secure, suited to their needs, and under conditions of complete freedom. In a word, the conception of a pension has been transformed in the future policy of the Foundation from that of a free gift, subject necessarily to modifications with time, to that of an annuity, earned thru the coöperation of the teacher and based upon an individual contract. The pension system no longer faces toward the group of teachers grown old in service, but toward the men entering the profession, and offers to them the machinery thru which protection against dependence for themselves and for their families may be had upon terms that are secure, that make for a larger freedom of the individual, and that are within the reach of men on modest salary. The change is not merely one of details; the underlying philosophy of the pension problem has been transformed and its point of view oriented to conform to this philosophy. That process is noted in detail in the annual reports and bulletins; it is enough here to refer only to the more important generalizations upon which the details rest.

Mr. Carnegie had in mind originally the offer of a pension thru the Foundation to the teacher grown old in teaching. To the men of the generation now passing this privilege, coming unexpectedly at the end of long and faithful labor, was a gracious and friendly service. During the twelve years ended with the last annual meeting 564 retiring allowances had been voted by the trustees to teachers, and 173 pensions to teachers' widows in 161 institutions, at a total cost of $5,461,000. How much of human anxiety this expenditure has relieved, no one can estimate. To have rendered this service has been to the Founder of this institution one of the greatest satisfactions amid the lengthening shadows of advancing age. To him the occasional letter of appreciation from a teacher, or from a teacher's widow, has meant a real benediction.

Notwithstanding this notable service to the teachers of the generation now pass-

ing from the field of active service, the experience of a few years was sufficient to make clear to Mr. Carnegie and to his trustees serious weaknesses in any plan of pensions supported entirely without the coöperation of the teacher and his college, and to raise the question whether such a pension system could be permanently in the interest of the great body of teachers. The objections to the plan rest upon grounds that are partly social and economic, partly educational, and partly financial.

The first group of reasons are the most weighty in just such proportion as a false social philosophy is more costly to society than an unsound financial system. Experience soon showed that to offer unexpectedly to the teacher already old and worn by long service the gift of a pension was one thing, to hold it before the eyes of the young teacher, twenty-five, thirty, forty years away from a legitimate retiring age, was quite another.

The sense of getting something for nothing appeals so universally to a quality in human nature that it might almost be likened to that other weakness designated by the master of literature as a touch of nature that makes the whole world kin. The promise of a paid pension held for years before the eyes of men even so high minded as college teachers is demoralizing. It would astonish the public, as indeed it astonished the trustees of the Foundation, to discover year by year how many university presidents and teachers, men in the early fifties and in sound health, persuaded themselves that for one reason and another the cause of education or of the public good would be advanced if they were endowed with a pension under some special ruling. The effect of the so-called free pension system is demoralizing to any group in the body politic. Perhaps no other social device goes farther to confuse the sense of responsibility and of personal independence among good men. It is the most prolific breeder of human selfishness. This is the fundamental objection to it.

There is a fallacy concerning the free pension widespread and difficult to combat unless one has the time and the patience to read the voluminous literature on the subject. The notion that in the free pension the beneficiary gets something for nothing is an illusion. There is no free pension where the question of wages and pension are involved together. In the course of a limited number of years such pensions will be adjusted to the salary or wage scale. Under such conditions all salaries will be affected, while only a minority will get pensions. A contributory pension plan which keeps each individual's account separately and which returns under any circumstances —discharge, premature death, or retirement—the contributions and their accumulations to the individual, is the only just principle upon which to base an old age pension.

It is further a sound principle of social experience that to lift from the shoulders of the individual a responsibility rightfully his is to do him in the long run an injury rather than a service. The responsibility of protecting oneself against dependence in old age belongs to the individual. He has his whole active life in which to prepare for it. The duty of society does not lie in relieving the individual of this duty, but

rather in providing the machinery under which the individual shall be able to discharge his obligation without making an unreasonable demand either upon his financial resources or upon his self-control.

The free pension system faces the wrong way; it makes its appeal to the men already old in service, not to those about to enter the profession: it proposes to do for these younger men that which they can best do for themselves; it rests upon a mistaken social philosophy.

The educational objections to a pension system supported without the coöperation of teachers and their colleges were also evident after a few years of experience. Since the income from the endowment of the Foundation would supply retiring allowances to only a limited number of teachers, it was necessary, if they were to be based on definite rules, to limit the pension system to a group of institutions selected upon some educational criterion. Such a discrimination among the colleges of the United States and Canada, carrying a privilege so highly valued as a full paid pension, became every year more and more difficult to make with justice. A permanent situation under which a small group of colleges enjoyed this privilege was at least of doubtful educational value.

Back of this lay a fundamental objection which the trustees as conscientious men sought to face. The Foundation as part of its work dealt with college practice and administration, involving the criticism of such matters as teaching methods, standards of admission, and questions of university policy. The value of such work, performed by an agency standing outside the college circle, is unquestioned. The function of educational study and report ought, however, to be dissociated from that of conferring a pension. The institution of a pension or annuity system ought to have but one object—to make it possible for all the members of a given group to protect themselves against the risk of dependence in old age. This single aim ought not to be complicated by any question of educational discrimination.

On economic and financial grounds the objection to non-contributory pensions paid out of income are no less serious.

A pension system is devised for a homogeneous group; for example, of teachers, of public servants, or of other persons working on stated salaries or wages. Such a pension system supported out of income, either from an endowment or from government revenues, will increase beyond all anticipations. It is impossible to estimate in advance the load arising after a period of years from such pensions. Under such conditions pension systems have generally broken down, unless supported by the practically unlimited income of government, and even in governmental experience such results have not been uncommon.

To support an old age pension system within reasonable limit of cost, the pension must be provided by moderate annual payments over a term of years, in which both employer and employee participate. These accumulations must be put aside year by year to form a reserve to provide the old age annuity. Under the contract the accu-

mulations must go, in case of death before retirement, to the designated dependents of the employee.

A pension system so planned has a sound basis, both in social and financial principles. It aims at only one thing, namely, to provide adequate protection to the individual against dependence in old age. In accomplishing this result it appeals to his sense of self-respect and independence, and it offers at the same time the largest measure of freedom and security. Its expense to the employer can never exceed a small percentage of the annual payroll, determined in advance.

In some such way, and after twelve years of study and experience, the trustees of the Foundation have come to a conception of a pension derived from the joint contributions of the teacher and his employer, the college; and resting upon economic and financial principles that secure permanence and security. These principles are fully set forth in the report of the Commission printed in the Twelfth Annual Report of the Foundation. This report goes one step further and makes clear the fact that the question of the teacher's protection from dependence in old age cannot economically be separated from that of the protection of his family against his premature death. In other words, insurance during the active period of life must articulate with an annuity after active service ceases.

The solution thus made of the teacher's pension problem separates the pension question from all others. It is complicated by no educational or denominational tests. The object of the Teachers Insurance and Annuity Association of America is to make it possible for ambitious men and women to enter upon the calling of the teacher and feel sure that they can protect themselves within the limit of their modest salaries against dependence, and can do this under conditions of complete freedom and security. This is the sole purpose of the Association, chartered under state law and subject to the supervision of the insurance commissioner of the state.

The solution of the pension system, as thus worked out by the Foundation, will in the long run profoundly affect the teaching profession. The full advantages that it confers will not be fully understood for some years. There will be necessary for this a widespread understanding among college teachers of the true purposes of insurance and of annuities. The great gain to all teachers, whether in institutions associated with the Foundation or not, lies in the fact that the pension problem for teachers has been worked out upon principles that are just and enduring, that give to the teacher both freedom and security, and that minister at the same time to his sense of independence and self-respect.

The trustees of the Carnegie Foundation took up the problem of teachers pensions at a time when the pension problem was rapidly becoming a question of the first magnitude for all groups of citizens — public servants, teachers, clerks, railway employees, in fact for all classes of men working on fixed salary or wage. It was impossible under such circumstances to determine finally upon the form of teachers pensions without a full discussion of the underlying principles upon which all old age

pensions must be justified. For this reason the trustees of the Carnegie Foundation could not, as patriotic men, base the pensions of teachers upon other principles than were applied to other groups in the body politic.

The great war in which we now are engaged has served to make this obligation clearer. War pensions in our country have in the past constituted the greatest source of political corruption with which our Government can be charged. The legislation relating to our Civil War pensions is a monument to the weakness of our legislators and of our Presidents, with the notable exception of Grover Cleveland. The increases to these pensions even during the last year, a half century after the war ended, have raised the annual pension roll to a new and unheard of load of $220,000,000.

We are now involved in a war in which the number of soldiers engaged enormously exceeds that of the Civil War. If there should follow upon the heels of peace such pension legislation as followed the Civil War, no one can estimate the staggering sum imposed upon the country in the matter of pensions. And the money cost is only the smallest part of the load. The demoralization of such wholesale exploitation of the Treasury of the Government is beyond words. It has in the past corrupted parties, demoralized legislation, and spoiled the sweet taste of patriotic devotion for millions of our people. If such legislation shall be the aftermath of this war, no man can estimate the loss and demoralization that may come to the Government and to the people.

Very wisely our Government is seeking to forestall such a misfortune by a generous system of insurance for soldiers. Our past experience, however, indicates that once the people are taught to expect something for nothing, nothing short of an education as to the fundamental principles of a pension will suffice to prevent in the future a demand for free pensions more costly and more demoralizing than those of the past.

The experience of the Carnegie Foundation has proven to those charged with its responsibility that even for a group of high-minded and independent men like college teachers the free pension system was a source of demoralization. Once convinced of this fact, its trustees have sought honestly and sincerely to apprehend and to state clearly the fundamental conditions for a pension system that shall be effective but shall not demoralize. In formulating these principles and in reconstructing their own system in accordance therewith, they have realized that they were dealing in a small way with a question with which the whole people must deal on an enormous scale. They have sought to discharge their obligations, not only to a trust and to a particular group, but as an obligation to the country as well. So far as it is in their power, they have sought to make clear that no man receives a free pension, even from a government. Some pay for it in suffering and deserve all they receive; some pay for it in diminished wages; but a vast majority of all who receive it thru legislative action pay in a diminished self-respect and a quickened selfishness.

THE FOUNDATION UNDER THE NEW RULES

On April 22, 1918, the trustees of the Foundation revised the rules for retiring allowances to conform to the conditions created by the establishment of the reserve funds, and by the inauguration of the Teachers Insurance and Annuity Association of America. There has been sent to each associated institution a number of copies of the new rules, together with the statement of the Teachers Insurance and Annuity Association showing the terms and rates for insurance and for annuity policies. These two statements taken together enable the associated institutions and their teachers to determine precisely the relations of teachers in these institutions to the rules, whether in the case of those who have been long in the service or of those who may enter in the future.

The rules of the Foundation as thus revised divide the teachers in the associated institutions into three groups. In group A are included all teachers who were connected with the associated institutions on November 17, 1915, and who reach age 65 on or before June 30, 1923; in group B those who were in these institutions on the date named, but who will not have reached age 65 on June 30, 1923; and in group C all teachers in associated institutions entering after November 17, 1915. Group C therefore embraces the great mass of young instructors and will include all teachers entering year by year into these institutions, and coöperating in the contributory system of old age annuities. Teachers in groups A and B will receive retiring allowances from the Foundation as fixed by the rules. The teachers of the future do not receive retiring allowances direct from the Foundation, except in case of disability, but it will still be true that membership in the group of associated institutions will still confer both upon colleges and upon their teachers privileges of great value. These are set forth in the rules. The privilege most appreciated by the teacher will be the disability annuity, granted in case of total disability after five years of service as a teacher, upon conditions fully set forth in the rules. Under the advantages offered by the Teachers Insurance and Annuity Association the man upon whom misfortune falls is the only teacher who will have occasion to accept a non-contributory pension. After twenty years of experience have shown the exact cost of such a disability pension, it can be included in the annuity contract. A reserve fund to care for these disability pensions, available principal and interest, is being accumulated by the trustees.

SOME QUESTIONS OF ADMINISTRATION

There have been sent to the associated colleges and universities copies of the new rules, together with the handbook of the Teachers Insurance and Annuity Association setting forth the various policies available to teachers both for insurance and for annuities. These two statements taken together enable colleges and their teachers to inaugurate at once the contributory plan of annuities for their new men, and to

take up with the officers of the Association the methods of carrying out the details of the business. There are still various matters of procedure to be settled that apply equally to colleges whether on the associated list or not, and to which attention must now be directed in order to put the plan into practical operation. It is understood that insurance is regarded as a matter for the individual, while the annuity is to be paid by joint contributions of the teacher and his college. To carry out the business without agents and at the lowest cost, there will be needed a simple but effective coöperation between the actuary of the insurance company and the treasurer or bursar of the college. Not only should the teacher be able to receive, thru the office of the treasurer or bursar, such printed statements concerning the insurance and annuity policies as he may need, but it will be essential that he be able to pay his premiums in monthly instalments directly thru the college office by the authorization of the proper deduction from his monthly pay. An effective coöperation between the treasurer of the college and the actuary-manager of the Insurance Association is a necessary part of the plan for cheapening the cost of insurance. The opportunity to cut down the cost of the service is found in large measure in the fact that teachers are gathered in groups, and can be dealt with in groups thru the college treasurer so far as the collection of premiums is concerned. It goes without saying that the individual teacher has the privilege of annual, semi-annual, or quarterly payment direct to the Association if he so prefers. These details are set forth in the handbook of the Association.

In addition to the matter of coöperation between the college treasurer and the Association in the collection of premiums, certain other questions of detail, which affect alike associated institutions and those not so related, need to be determined. Of these the more important are the following:

I. Shall the college contribute toward the old age annuity the same percentage as the teacher, or a different one?
II. Shall the college begin its contribution as soon as the teacher becomes a contributor, or only after the teacher has had one, three, or five years of service?
III. What limit shall be fixed by the college beyond which it will not contribute toward an annuity?
IV. Shall participation in the old age annuity system to the extent of a prescribed minimum be made a condition of college service for instructors entering in the future, or shall the matter of participation be left to the decision of the individual teacher?

These questions confront the colleges at the inauguration of the non-contributory system. It is important that some fair uniformity of practice in the United States and Canada concerning these details should be reached. The annuity system is designed to serve all college teachers of English-speaking North America. It is desirable that migration from one college to another be made easy. For this reason if for no

other, some fair agreement on principles in the administration of the annuities is desirable.

With regard to the first of these questions it may be said that the general consensus of opinion has accepted the notion of an equal percentage contribution of the salary on the part of employer and employee as a fair arrangement. In all the preliminary computations of the Foundation it is assumed that a five per cent contribution by the teacher and an equal contribution by the college would be agreed to. This was adopted for the reason that such a contribution will produce for the representative teacher a respectable annuity at the age when the typical teacher is likely to need it. This annuity would amount to about fifty per cent of the active pay at age sixty-five, to less than half at an earlier age, and to more than half if the annuity was not availed of till an age later than sixty-five. On the whole this seems the simplest and fairest arrangement.

In this connection one fact needs to be recalled again and again to the attention of those charged with the conduct of college finances. Whatever contribution the college makes to a teacher's annuity will ultimately be adjusted to the salary schedule and become in time merely deferred pay. This will not come about for some years, but as soon as the contributory plan becomes a part of the regular régime, the college contribution will be absorbed in the salary. This is the reason why all such contributions by the college on the part of any teacher must go to his individual credit and be returned in time with their accumulations either to the teacher or to his heirs.

Notwithstanding the fact that the college contribution will in time be coördinated with the salary, it still remains true that this contribution and the coöperation of the college with the teacher in providing for old age a protection against dependence is of great service to him, and is indispensable to the carrying out of the plan. The important fact is that year by year the college and the teacher coöperate to set aside the necessary reserve which, under any circumstances, is to be used for the protection of himself and his dependents.

On the whole, a contribution by a teacher of five per cent of his active pay and an equal contribution by his college seems the simplest and most satisfactory arrangement, and the one most likely to secure universal adoption.

The second question arises out of a practical difficulty. If the college begins its contribution with every young instructor as soon as he enters college service, it will inevitably happen that a considerable part of its contribution will go to men who spend only a few years in teaching, and who have never intended to make it a permanent profession. This same question, of course, meets the Teachers Insurance and Annuity Association in writing its policies, and a large amount of thought was given both by the officers of the Association and by the Insurance Department as to the way in which it should be met. Under the law a policy, whether for insurance or for an annuity, cannot be canceled simply because an individual changes his occupation, nor can the rates of insurance be raised for such a reason. The matter was finally

settled in the following manner. The net rates for policies were given a ten per cent loading. Any college teacher who takes out a policy receives a reduction of ten per cent as long as he is a teacher. Should he cease to be a teacher, he pays the full rates. These will still be as low and probably lower than he could obtain in commercial companies. If he feels he can do better, he is in a position to purchase wherever he desires. Meantime, as long as he remains at the higher rate he is a source of profit to the Association, which profit goes of course to the policy-holders who are teachers.

It is not so easy to settle the question from the standpoint of the college. There is every reason why the instructor should begin his contributions as soon as he becomes a teacher. The accumulations of the first early years of the teacher's life count enormously if he lives to old age. Any action that diminishes the incentive for early savings is against the general principle whose establishment is sought.

In the Twelfth Annual Report some interesting information was given as to the changes in the staffs of the associated colleges brought about by withdrawals. These figures are not wholly conclusive, since they did not show how many of those who dropped out of these colleges entered other institutions. In general, however, it may be said that, even among instructors, a position generally looked upon as the entrance to a teacher's career, the proportion who leave teaching for other vocations is quite large. Most of these changes come at the end of the first year and the great bulk of them by the end of the third year. An arrangement, therefore, under which the college contribution began only with those instructors who had had one year of service would eliminate the greater part of what might be called the floating population of the college profession; while a provision making the college contributions begin after three years of service as an instructor would remove all who ought to be looked upon as temporary members of the profession.

Any measure, however, framed to exclude such temporary members of the teaching profession from participation in the college contribution should be framed with great care, and in such manner that it will not strike a blow at the very principle which prompts the individual to begin the accumulation of an annuity as soon as he has entered upon a salaried position of permanence and responsibility.

A provision by a college which offered coöperation after one year of service would be a generous measure of coöperation with its teachers. If the coöperation of the college was granted after a longer period, let us say after three years, it should be coupled with the provision that the contributions for these years would be paid by the college to those who remained, after this period, in the teacher's profession. The cost to the college from the adoption of either of these solutions will be very small, and any saving that will be effected by a more far-reaching provision is more or less illusory, for the reason that in a few years, as the old age annuity plan becomes general, any college that desires to transfer an able man from the service of another institution will find itself compelled to adjust the annuity contribution it will pay exactly as it adjusts the salary, which is again only another way of saying that the annuity con-

tribution will, after a time, adjust itself to the salary schedule. There is no way under which any college can permanently escape or ought to desire to escape participation in some retiring allowance system. In the course of a limited number of years whatever form of contribution the college adopts will be adjusted to the general scheme of teachers' compensation. The great end gained is that the compensation scheme embraces a provision, of the safest and least expensive form, for enabling the teacher to retire honorably and comfortably when his powers wane, a result as important to the college as to the teacher. This result the college ensures by making a part of its compensation in such a form as to secure the protection against old age dependence in the case of its own teachers. For these reasons any hairsplitting on the part of college authorities over the terms of the annuity contribution they are to make will be thrown away. A college is going to be called upon to pay to its teachers reasonable salaries such as will enable them to live simple but comfortable and scholarly lives. The question is, shall part of this compensation be set aside for an old age annuity. Whatever arrangement will accomplish this in a satisfactory manner is to the interest of the college, and will not in the long run make any great difference in the total amount of compensation paid to teachers.

The third question — the limit of contribution the college shall set — is one entirely for the college to determine, but one that will naturally settle itself from the circumstances of the teacher's life. The instructor begins with an annual salary of from twelve hundred to fifteen hundred dollars at about age thirty. An annual payment of five per cent, combined with a similar payment by his college, will produce at sixty-five an annuity of approximately one thousand dollars a year. Under ordinary circumstances the teacher would desire as his salary rose to continue to pay at least until he is past middle life the five per cent on his annual salary, and secure the corresponding annuity. The college would seem to be protected from any possibility of exploitation by its teachers, if it limited its contribution to five per cent of the normal salary of a full professor. It may happen that an occasional teacher with outside resources may prefer to accumulate the reserve for a retired pay larger than his salary. He will, of course, be entirely free to do so, but there will be no obligation upon his college to go beyond the limit it has set. A condition that the college contribution will be limited to five per cent of the normal salary of a teacher would seem to safeguard the matter sufficiently. The number of teachers whose incomes enable them to set aside large reserves for old age is negligible.

The fourth question touches a matter of general policy — shall participation in the old age annuity plan established in any college be required of all instructors entering the college service, to the extent at least of a prescribed minimum?

This question is one much discussed in the literature of pension systems. There is a general consensus of experience that when a pension system is provided for a specified group, participation in this system may justly and fairly be required of all who enter the group, unless their protection is assured by other means. Unless this re-

quirement is made, those who most need to be protected in old age are those least likely to undertake to provide for it until too late. The commission that reported to the Foundation upon the whole matter of pensions and pension systems made the following recommendation: "To attain its full purpose, participation in the pension system to the extent of an agreed minimum should form a condition of entering the service or employment, the members of which are coöperating in the pension system." The commission later recommended that the decision of this matter be left to the governing bodies of the various institutions.

It is important that the governing bodies of the colleges follow the plain results of experience, and require participation in the old age annuity as a condition, either of entering college service or of remaining in it after the probationary period of one, two, or three years, should such be adopted. Such a requirement involves no injustice to the individual, while non-participation in the case of an individual may result in a serious injustice to the college.

The minimum participation required should be fixed at a moderate figure. The annuity provided by a contribution of five per cent of the teacher's salary during the first ten years of his work as a regular member of the college staff would form a reasonable and moderate participation. If after ten years a teacher decided not to increase his contribution, the continuation at this level would ensure him at least a modest living.

The trustees of the Foundation will, at the annual meeting in November, 1918, discuss these and similar matters affecting the practical inauguration of the contributory system by the colleges. The Teachers Insurance and Annuity Association has issued a handbook and is now ready to write policies. The Foundation has issued its new rules to meet the conditions of the contributory plan. The way is now clear to set up the plan so designed, both in the associated colleges and in those not so related in the past to the Foundation. The officers of the Foundation and of the Association are ready to give any assistance in their power to colleges or to teachers, in inaugurating the new machinery.

THE TEACHERS INSURANCE AND ANNUITY ASSOCIATION OF AMERICA

This agency, established by the Carnegie Foundation thru the generous coöperation of the Carnegie Corporation, is now ready to write policies both for insurance and for annuities. The various policies are described and the rates for each are given in a convenient pamphlet issued by the Association, which may be had on application to the Actuary of the Association, 576 Fifth Avenue, New York City. The actuaries of the Association are at the service of teachers and of colleges to give any further information concerning these policies that may be desired. The purpose of the Asso-

ciation and its method of operation have been so completely set forth in the various reports of the Foundation that such information as may now be desired by those seeking insurance and annuity policies pertains to details that can be best answered directly from the office of the Association. It is hoped that in the course of a year it may be possible for the officers of the Association to meet groups of teachers and make clear to them any details not fully understood thru the printed handbook. It goes without saying that visits from teachers and others connected with colleges and universities to the office of the Association will be welcomed. It is particularly desired that bursars or financial officers of colleges, who are in direct contact with the teaching faculties, may avail themselves of any opportunities to visit the offices of the Association and become familiar with the details of its administration, so that they may be able to answer the questions likely to arise in the mind of a teacher desiring a policy in the Association.

The Association has no agencies. The opportunity to cut down cost lies in considerable measure in the fact that teachers can be dealt with in groups. About a thousand such groups—varying in size from a small faculty of ten or twelve to the hundreds gathered in the teaching staffs of the great universities—are scattered over the United States and Canada. The success of the Association and its ability to serve these teachers will rest in the end upon securing, on the part of the great body of these teachers, a cordial coöperation and a widespread acquaintance with the elementary principles underlying insurance.

THE EXPECTATIONS OF TEACHERS

Seventy-four colleges and universities have been admitted to the privileges of the retiring allowances provided from the income of the endowment of the Foundation. These institutions contained in November, 1915, some six thousand teachers, old and young, including professors, associate professors, and instructors. At the annual meeting held in that month a general plan for transforming the pension system of the Foundation was laid before the trustees. This plan was sent to all associated colleges and universities, and they were notified of the proposed change and their suggestions and coöperation were invited. It has been necessary for the trustees of the Foundation to assume some date at which the privileges of the old system shall terminate. The trustees have adopted the date of this meeting, November 17, 1915. Every teacher in an associated institution upon that date has been included in the provision made for fulfilling the expectations of the associated institutions and their teachers. A half century and more will pass before all these pensions have been paid.

While the Foundation had explicitly reserved from the beginning the right to change the rules governing the granting of allowances, nevertheless there was a very natural tendency on the part of the beneficiaries, both individual and colleges, to

construe these privileges as contracts. The trustees of the Foundation in consultation with many teachers and college officials, as well as with high-minded and disinterested men of affairs, sought to determine what would be a just and generous fulfilment of these expectations, without involving the Foundation in an unwarrantable use of trust funds for a very long period of years. In making such a determination the Foundation necessarily took counsel with the trustees of the Carnegie Corporation, to whose generosity they were indebted for the additional funds necessary to provide these pensions for the distant future.

The plan adopted by the trustees is given in full in the special statement addressed to the teachers of the associated colleges and universities, under date April 22, 1918. This statement is republished as Appendix I of this report. It contains a full statement by the trustees of the reasons that led to the adoption of the plan, and of the action by the Corporation in providing a large reserve for future pensions. A sufficient number of these pamphlets have been sent to the associated institutions to place a copy in the hands of every teacher.

THE TWO RESERVE FUNDS

Thru the action of the Carnegie Corporation and by reason of its interest in a wise solution of the problem of teachers pensions, two reserve funds have been created in the custody of the Foundation, one to be used in the payment of pensions to teachers now in the associated institutions, and the second to be expended for the benefit of institutions admitted in the future and for their teachers. The conditions governing these two funds and their present state as of June 30, 1918, are given below.

The First Reserve Fund. The First Reserve Fund was established under the following conditions laid down by the Carnegie Corporation:

1. The Foundation shall begin at once the accumulation of a reserve fund for the liquidation of pension obligations to accrue from teachers in the associated institutions. Into this reserve fund the Foundation shall place its present surplus amounting to approximately one million dollars. To this reserve fund the Corporation shall contribute $5,000,000 par value of bonds, any deferred payments at the convenience of the Corporation to be made as of January 1, 1918, with interest at four per cent. This reserve is to be placed in a special account by the Foundation, and the income from it added to the reserve from year to year for a period of ten years.
2. The Corporation shall pay into the treasury of the Foundation for the same period of ten years $600,000 annually, at the convenience of the Corporation. The entire annual income of the Foundation not required in the judgment of the trustees for the payment of pensions is to be carried at the end of each year to the reserve fund.
3. The reserve thus created shall be available at the end of ten years for the

> discharge of the obligations of the Foundation as they may accrue thereafter. Should the experience of the next fifteen years prove that some further adjustment is necessary at the period of maximum load, thirty years hence, the responsibility for such adjustment rests with the Foundation. Should the reserve prove greater than is demanded for this purpose, the residuum shall be added to the permanent endowment of the Foundation to be used for its corporate purposes.

This Fund, whose purpose is to provide a reserve to supplement the income from the endowment of the Foundation, was inaugurated in January of 1918 by the payment to the Foundation of $2,500,000 par value of bonds on the part of the Corporation. Upon the remaining two and a half million of bonds the Corporation pays four per cent interest until they are paid in. At the close of the fiscal year, June 30, 1918, there were in this First Reserve $3,777,000 par value of bonds and $67,908.25 in cash.

THE SECOND RESERVE FUND. The Second Reserve Fund was established by the Carnegie Corporation at the request of the Carnegie Foundation for the benefit of institutions to be later admitted to the list of associated colleges and universities and for their teachers.

The considerations that gave rise to the creation of this Fund were the following: During the next generation a huge sum will be spent in fulfilling the expectations of the teachers in the associated institutions. The teachers in these institutions, however, constitute scarcely more than one-tenth of the whole number of teachers in the colleges of the United States and Canada. It would be clearly impossible for any endowment to undertake the task of caring for the pensions of older teachers in all the colleges of the United States and Canada. Nevertheless, in the inauguration of the contributory pension plan during the next ten years even a moderate sum of money may serve a large purpose in enabling institutions to meet some of the difficulties of these years.

For example, even tho retiring allowances cannot be provided for all the teachers of such colleges, the retirement of an occasional teacher, particularly one of long and distinguished service, will enable the college to face more easily the inauguration of the contributory plan for its younger teachers. Just how colleges are to provide their annual contributions, amounting to a small percentage of the salary roll, is a problem for each college. In many cases institutions will prefer to provide a special fund whose income will meet this annual expenditure. The trustees of the Foundation may decide to expend part of the Second Reserve Fund in assisting institutions hereafter admitted to the associated list, in the formation of such an endowment. Just how this Reserve shall be expended is a question for the trustees of the Foundation to decide.

The Reserve Fund was established under the following conditions: The Carnegie Corporation at its meeting of November 22, 1917, passed the following vote providing

a reserve fund at the disposition of the Foundation, "One million dollars to be paid into the treasury of the Foundation during the next five years, to be placed in a special account and to be used for the benefit of colleges and teachers not now associated with the Foundation." The Corporation later provided for the payment of this fund in equal monthly instalments running over five years.

The Second Reserve was inaugurated by a payment of $16,666.66 into the treasury of the Foundation in January, 1918. At the close of the fiscal year, June 30, 1918, the reserve contained $70,000 par value of bonds, and in cash $35,782.46. The reserves created by these payments for the next five years together with their accumulations are available for expenditures in institutions not now associated with the Foundation, but which may subsequently become so associated.

FUTURE ADMISSIONS TO THE ASSOCIATED LIST

In the various reports and papers published in the past three years every effort has been made to preserve a clear notion of the distinction between the Carnegie Foundation and the Teachers Insurance and Annuity Association. The first is a philanthropic agency chartered by the Congress of the United States. By the conditions of its charter certain distinctions and discriminations are made between institutions of college or university grade. The Teachers Insurance and Annuity Association, on the other hand, is incorporated under the Statutes of the State of New York to write insurance and annuity policies suited to the college and university teachers of the three English-speaking countries of North America. It will make no discriminations on account of denominational or state control, nor on account of educational standing.

The Carnegie Foundation has an endowment of fifteen millions of dollars, of which it may use only the income. For many years to come this income will be almost entirely absorbed in paying the retiring allowances accumulated from the associated institutions. The trustees of the Foundation have voted that they will guarantee the overhead cost of the Teachers Insurance Association in case the capital and surplus should in the course of time not yield a sufficient income for that purpose.

The Foundation will be no less active in the various fields in which it has worked than in former years. Its Division of Educational Enquiry is bringing out at this time a series of important studies, and new enquiries will be undertaken in the near future, and as the income of the Foundation is relieved in the course of time of the load of pension obligations, there will be made available a large income which the trustees will devote to such uses as the men of that day may decide. No doubt the disability pension—paid to teachers under the new rules after five years of service—will come in time to a large annual cost.

All this is perhaps very generally understood. It is not so generally appreciated that in the future the Foundation will offer certain large advantages to the teachers of the

colleges associated with it in the future, over and above the contracts for insurance and for annuities which are obtained from the Teachers Insurance Association.

The two principal advantages to teachers arising from membership of their colleges in the associated list consist in the announced intention of the trustees of providing a return of not less than four and one half per cent on payments made by these teachers to the Teachers Insurance Association, and in the second place, the granting of disability allowances after five years of service upon the conditions stated in the rules. It goes without saying that admission to the associated list will continue to be based upon the same sort of educational scrutiny hitherto observed.

There will be available to the trustees of the Foundation during the next five years a reserve of one million dollars, to be used for the benefit of colleges admitted in the future to the associated list and for their teachers. In what manner this fund shall be employed for the benefit of these institutions and their teachers the trustees must decide.

There are in the hands of the Executive Committee applications of a number of colleges and universities for admission to the associated list. These have necessarily awaited action until the important problems under consideration by the trustees had been permanently solved. These applications will now no doubt be taken up and acted upon.

REPORTS OF THE ACTUARIAL COMMITTEES

There are in the United States and Canada two professional actuarial societies, known respectively as the Actuarial Society of America, founded in 1889, and the American Institute of Actuaries, founded in 1909. Each of these societies consented to examine and report upon any plan of insurance and annuities proposed by the Foundation for the benefit of college teachers thru committees appointed for that purpose, an offer gratefully accepted by the Foundation.

The committee on the part of the Actuarial Society of America consisted of the following actuaries:

Arthur Hunter, *Chairman*, Actuary of the New York Life Insurance Company.
John K. Gore, Actuary of the Prudential Insurance Company.
Arthur B. Wood, Actuary of the Sun Life Insurance Company of Canada.
J. D. Craig, Assistant Actuary of the Metropolitan Life Insurance Company.

The committee appointed by the American Institute of Actuaries was composed of—

James W. Glover, *Chairman*, Professor of Mathematics and Insurance, University of Michigan.
Charles H. Beckett, Actuary of the State Life Insurance Company of Indianapolis.

Franklin B. Mead, Actuary of the Lincoln National Life Insurance Company of Indiana.

Henry L. Rietz, Professor of Mathematics, University of Illinois.

The reports of these two committees are printed as Appendix II of this report, and reveal some interesting differences in their points of view.

Both reports certify to the conservatism of the assumptions made as to mortality and interest rates, and approve the principles upon which the Teachers Insurance and Annuity Association are based. The purport of both reports is to emphasize the need of conservative methods in the earlier years. The body of the reports is devoted to a discussion of matters of detail, such as term policies, participating and non-participating policies, and the like.

The discussion over participating and non-participating policies is one that has gone on for a great number of years. Is it better for the insured to collect from him annually a larger sum than the known cost of the risk, and return part of the excess in a so-called dividend, or is it to his interest to be charged net rates with no promise of a dividend? Over this question insurance experts will always have two opinions. There is something to be said on both sides, but one needs to be clear that the argument is not sometimes from the standpoint of the Company rather than from that of the policy-holder.

The decision to employ the non-participating policy in the Teachers Association was reached by the advice of the New York State Department of Insurance after many conferences in which the aims of the Association and its relation to the Department of Insurance were thoroughly discussed. One circumstance made this decision apparently unavoidable. It was desired to use the income of one million dollars, given by the Carnegie Corporation, for paying the overhead charges so as to furnish insurance at net rate. It would be impossible so to employ this income and at the same time offer participating policies. Inasmuch as the Association is, under its charter, compelled to conduct its business "without profit to the corporation or to its stockholders," the general plans are, as pointed out in the report of the committee of the Actuarial Society of America, "practically on the same basis as those of a mutual insurance company." Under these circumstances the matter of participation takes care of itself.

Like any new insurance enterprise, the Teachers Association will have in its earlier years but a small number of risks. It must be prepared to meet comparatively large fluctuations in the claims paid from year to year. Until time brings statistical regularity, it seems much better to grant insurance for the fixed non-participating premiums, and to provide for such fluctuations by the subscribed surplus, rather than to have these fluctuations appear in the yearly cost of insurance to the teacher, which must be the case under the "annual dividend" plan under the New York law. The Association will grant insurance at the lowest fixed price consistent with safety, it will not ask the teacher to "participate" in the fluctuating returns of a young enterprise.

The ordinary business risks of the Association ought in fairness to be assumed by the body that has created it; to require the policy-holders to assume them under the guise of the right to participate in surplus would seem to be offering something less to the teachers than the service which the Association was designed to render. There is no way to grant participation in surplus without requiring, in one form or another, participation in deficits, if they occur.

This question, like that of the desirability of term insurance to teachers protected by deferred annuities or pensions, is a matter of opinion. The numerous suggestions made by the committees upon technical actuarial points have received attention. Teachers may feel assured that the Association will do nothing counter to the best advice of qualified experts upon problems capable of technical solution.

APPENDICES TO PART II

A STATEMENT TO THE TEACHERS IN THE ASSOCIATED COLLEGES AND UNIVERSITIES

REPORTS ON INSURANCE AND ANNUITIES OF THE TWO ACTUARIAL COMMITTEES

RULES FOR THE ADMISSION OF INSTITUTIONS AND FOR THE GRANTING OF RETIRING ALLOWANCES

[*Appendix* I]

THE CARNEGIE FOUNDATION
FOR THE ADVANCEMENT OF TEACHING

A STATEMENT TO THE TEACHERS IN THE ASSOCIATED COLLEGES AND UNIVERSITIES

THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

A STATEMENT TO THE TEACHERS IN THE ASSOCIATED COLLEGES AND UNIVERSITIES

During the twelve years of its existence, the officers and trustees of the Carnegie Foundation have been engaged in a study of the whole problem of the protection of teachers against the hazards incident to the life of the professional man living upon modest fixed salary. This study resolved itself into three practical questions:

First, Is the free pension system as originally adopted by the Foundation in the interest of the teacher and can it be made permanent?

Second, If the free pension is not a permanent solution, what are the terms upon which an adequate and enduring system of protection for college teachers should be based?

Third, In any substitution of a new plan for the old, what is a reasonable and fair fulfilment of the expectations of the teachers in the associated institutions?

The first two of these questions were, by a vote of the trustees of the Carnegie Foundation in November, 1916, referred for report to a commission upon which were trustees of the Foundation, college presidents, university teachers, and others directly interested in the solution of these questions. An expert actuary was at the service of the commission and the pension experience of the world was available for its use. This commission reached definite conclusions, which are printed in full in the Twelfth Annual Report. In the place of the free pension, the commission recommended certain fundamental principles which should underlie any pension system. It pointed out that insurance during the productive period of life must supplement an annuity in old age; that the former was purely the concern of the individual, while the latter was a joint obligation of the teacher and his employer, the college, and should rest upon their joint contributions. As a conclusion of its labors the commission presented a practical plan adapted to the needs of teachers, in which the individual may obtain both his insurance and his annuity

under definite, contractual terms, at minimum cost and subject to the scrutiny of the state departments of insurance.

The method of the fulfilment of the expectations of the teachers in the associated colleges and universities was not referred to this commission. The determination of that question is a responsibility which rests upon the trustees of the Foundation. The commission very properly, however, took occasion to express its opinion to the trustees in the following resolutions:

Voted: Referring to the resolution of the Board of Trustees of the Carnegie Foundation, adopted in November, 1915, that "whatever plan is finally adopted will be devised with scrupulous regard to the privileges and expectations which have been created under existing rules," this Commission expresses the opinion that the extension to all teachers at present in the associated institutions of the privilege of continuing in the present system would completely meet all their reasonable expectations. The Commission assumes that the Trustees of the Carnegie Foundation will in due time announce a date after which the privileges and expectations of the present system will not be available to those newly entering upon the profession of teaching.

Voted: That the Trustees of the Carnegie Foundation be requested to give all possible consideration to the needs of the older teachers in institutions which are not yet, but may later be, associated with the Foundation.

Voted: The Commission does not know the extent to which assistance can be obtained outside the present funds of the Foundation, but it is acting on the expectation of substantial assistance in carrying a large but limited load, and with the further understanding that adequate assistance cannot be obtained to carry the ever increasing pension burden without calling upon institutions and individual teachers to bear a share.

The report of this commission was considered by the trustees of the Carnegie Foundation at a special meeting held in May, 1917. At that meeting the trustees took up and accepted the statement of fundamental principles of a pension system as framed by this commission. The trustees also accepted the form of machinery recommended by the commission to carry out these principles as it is embodied in the proposed Teachers Insurance and Annuity Association, and voted to ask of the trustees of the Carnegie Corporation one million dollars to establish this agency.

To fulfil the expectations of teachers in the associated institutions in the manner suggested by the commission was beyond the power of the trustees because the funds at their disposal were inadequate.

There were in active service in these institutions on November 17, 1915,[1] some 6600 teachers, including professors, associate and assistant professors, and instructors. These teachers were distributed in age as follows:

Age	*Number of Teachers*
20-24	34
25-29	559
30-34	1149
35-39	1235
40-44	1124
45-49	925
50-54	675
55-59	440
60-64	247
65-86	238
	6626

This number must of course decrease year by year since teachers entering these institutions, after the date named, come under the new plan.

The conditions under which expectations have been created are the following:

Seventy-four colleges and universities have been admitted to the pension benefits of the Foundation. The teachers of these institutions have the privilege of retiring under the following rules:

1. An old age retiring allowance is granted at the minimum age of sixty-five, after fifteen years of professorial service.

2. A disability allowance is granted after twenty-five years of service in case of complete disability.

3. Widows of teachers qualified under provision 1 or 2, or widows of teachers who die before retirement after twenty-five years of service, receive one-half of the pensions accredited to their husbands.

4. The Carnegie Foundation retains the power to alter these rules in

[1] On this date the trustees passed resolutions looking toward the adoption of a contributory pension plan. These resolutions accompanied the President's report on the new plan, which was sent to the trustees, officers, and teachers of all of the associated institutions.

such manner as experience may indicate as desirable for the benefit of the whole body of teachers.

An actuarial estimate of the load likely to accrue year by year from the retirement of these teachers under the present rules involves assumptions of great uncertainty. The actuaries have little information to guide them in determining the rate of separation, the age at which men will choose to retire, or the average salary thirty years hence. The records of the Foundation show that there is a large drift from the associated colleges to the hundreds of other colleges and universities in the United States and Canada, and these records show also that a large proportion of younger men go out of teaching. But how large these factors are is unknown. Further, it is evident that the war will have a marked effect on this situation. Already a large number of teachers under forty have given up their positions. Some of these will return to their places, but many will enter other callings, or be distributed among other colleges. The only assumptions that can be made are that men will withdraw in somewhat the same proportion as during the past five years, and that teachers will avail themselves of the privilege of retirement as soon as it is open to them.

Under these assumptions the computations of the actuaries show that the load arising from the pensions of these teachers will steadily increase, reaching its maximum about thirty years hence, then diminishing, until about the forty-fifth year the annual cost will approach the present income of the Foundation. Computations on this basis indicate that the total sum necessary to be paid out during the forty-five years to carry out the present rules completely in the cases of these teachers will be $69,000,000, in addition to the sums, now amounting to about $700,000 annually, which the Foundation pays to teachers already retired and to widows of such teachers.

During the same period the income of the Foundation available for such pensions will be approximately $34,000,000. To carry out the present rules unchanged would require twice as much money as the trustees have at their disposal. In the light of these figures the expectations of the teachers, as formulated by the commission, were obviously not justified by the facts of the situation.

In making and announcing the present rules, the trustees of the Carnegie Foundation took pains not to bind themselves by promises which they might be unable to fulfil. In connection with their original announcement, and as part of the same memorandum, they explicitly reserved the right to make such changes in the rules of retirement as experience may indicate as desirable for the benefit of the whole body of teachers. This right has been twice exercised: once in the year 1908, by the extension of the privileges of the Foundation to instructors and to widows, and again in 1910 by the elimination of the pension hitherto granted on the basis of service alone. These facts were fully known to the teachers in associated institutions. But so great was the desire of the trustees to meet every expectation that had been created, whether fully justified or not, and so serious was their reluctance to curtail privileges which had been mistakenly regarded as promises, that after full deliberation the trustees of the Foundation decided to ask the aid of the Carnegie Corporation in carrying out the present rules upon the exact terms suggested by the commission—even tho they knew that the demands made upon the trustees of the Carnegie Corporation were so great as to make it doubtful whether this request could be granted in its entirety. This request, forwarded in the latter part of May, 1917, was conveyed in the following resolutions:

Voted: That the Carnegie Corporation of New York be asked to coöperate with the Carnegie Foundation for the Advancement of Teaching in carrying out the recommendations of the Commission in the following matters:

1. By enabling the Foundation to fulfil the expectations of teachers in the associated colleges and universities prior to the seventeenth of November, 1915. This will involve a large but limited liability extending over a number of years, the extent of which will be clearly indicated by the actuarial reports which accompany this record.

2. By enabling the Foundation to afford some assistance during the transition period of the next twenty years toward the retiring allowances of old teachers in institutions which are not now, but may later be, associated with the Foundation. At the present time the Foundation is devoting the income of more than $2,000,000 of its endowment to the payment of pensions to teachers not in the associated institutions.

3. By supplying the capital necessary to establish the Teachers Insurance and Annuity Association. The sum necessary to establish the Teachers Insurance and Annuity Association is $1,000,000.

In reply to these resolutions, the trustees of the Corporation answered, in November last, that they had given earnest study to the requests of the Foundation; they expressed their appreciation of the difficult questions with which the trustees of the Foundation have had to deal, and indicated their desire to aid toward a wise and just solution of its problems. In extending such aid, however, the trustees of the Corporation stated that they were obliged to take into account not alone the expectations of the Foundation, but the needs of other causes as well; that as a sound principle for their guidance they must assume that such obligations as the Corporation undertakes, whether on behalf of the institutions bearing Mr. Carnegie's name or for other agencies, shall be determinate. The present trustees of the Corporation did not feel justified in mortgaging any large part of its income for an indefinite number of years. In the light of these general principles, the trustees of the Corporation stated that such aid as they could extend in enabling the Foundation to fulfil the expectations of teachers must be expressed in terms which are definite, both as to amount and as to duration. Bearing in mind these limitations, the trustees of the Corporation have agreed to supply, in answer to the request of the Foundation, thirteen millions of dollars, of which one million is to provide capital and surplus for the Teachers Insurance and Annuity Association, one million is to be devoted to the assistance of teachers and colleges not now associated with the Foundation, while eleven millions shall go to the creation of a reserve under the following conditions:

1. The Foundation shall begin at once the accumulation of a reserve fund for the liquidation of pension obligations to accrue from teachers in the associated institutions. Into this reserve fund the Foundation shall place its present surplus amounting to approximately one million dollars. To this reserve fund the Corporation shall contribute $5,000,000 par value of bonds, any deferred payments at the convenience of the Corporation to be made as of January 1, 1918, with interest at four per cent. This reserve is to be placed in a special account by the Foundation, and the income from it added to the reserve from year to year for a period of ten years.

2. The Corporation shall pay into the treasury of the Foundation for the same period of ten years $600,000 annually, at the convenience of the Corporation. The entire annual income of the Foundation not required in the judgment of the trustees for the payment of pensions is to be carried at the end of each year to the reserve fund.

3. The reserve thus created shall be available at the end of ten years for the discharge of the obligations of the Foundation as they may accrue thereafter. Should the experience of the next fifteen years prove that some further adjustment is necessary at the period of maximum load, thirty years hence, the responsibility for such adjustment rests with the Foundation. Should the reserve prove greater than is demanded for this purpose, the residuum shall be added to the permanent endowment of the Foundation to be used for its corporate purposes.

This generous addition to the resources of the Foundation will provide, at the end of ten years, a large reserve, available, principal and interest, for the payment of pensions. This reserve, together with the income of the Foundation, will enable the trustees to expend during the next forty-five years in meeting the expectations of the teachers in the associated institutions over fifty millions of dollars.

Even this large sum is not sufficient to carry out the present rules without some modifications, and as a part of the agreement to this joint arrangement, the trustees of the Corporation attached the following condition:

"The trustees of the Carnegie Foundation shall now and hereafter, from time to time as may prove necessary, revise their rules so that the pensions provided for shall not exceed the financial resources of the Foundation."

The trustees of the Carnegie Foundation have now a definite sum with which to deal, and the revision of the rules in accordance with the agreement with the Corporation is now their first duty.

The general principles upon which this revision should be based seem clear. Men within measurable distance of the retiring age have expectations of a very definite character. To some extent their plans for the future are founded upon a retiring allowance at sixty-five. On the other hand, teachers who are many years from retirement have no such definiteness of expectation, and have not altered their life plans in the prospect of a pension many years hence. Furthermore, younger teachers will obtain thru the new Insurance and Annuity Association far greater advantages in the way of cheap insurance and annuities than older men. From every consideration of equity, therefore, it is desirable that such revision as is necessary shall be so planned as to affect the retirement of older men as little as possible and to apportion changes in the retiring

allowances of younger men with a view to the benefits they will enjoy from the Teachers Insurance and Annuity Association.

The nature and extent of the readjustment that must be made will be more clearly understood if the resources and expectations are stated in terms of "present values"[1] rather than in estimated gross amounts payable thru a long term of years. Stated in present values, as of December 31, 1917, the situation is as follows:

Resources available for allowances in associated institutions	$26,000,000
Amount required to pay pensions now in force	5,700,000
Available for allowances to those now in active service	$20,300,000
Estimated present value of expectations under the existing rules	$28,000,000

Reduced to its simplest terms, the problem confronting the trustees is to devise a plan of retirement for those now in service in the associated institutions which will reduce their obligations by approximately eight million dollars (present value), while meeting reasonable expectations in the fullest possible measure. Furthermore, it is the duty of the trustees to propose now such measure of retrenchment as nearly as it can be ascertained in order that equal justice be done, otherwise the drastic reductions that may be necessary fifteen or twenty years hence will be entirely at the expense of men whose pensions fall in at a later date. With the aid of expert actuaries the executive committee has examined every feasible assumption for bringing the cost of the future pension load within the limit of its known resources. It has taken into consideration all the suggestions of the associated institutions[2] and of the American Association of University Professors.[3] Like all problems in which pensions are concerned, it is only partly actuarial. The underlying assumptions which touch the questions of equity and of availability to teachers are matters of general judgment.

There are only three feasible methods of reducing the future cost of the estimated load: (1) to cut off entirely the expectations of a large

[1] Present value is that sum which, if in hand December 31, 1917, and invested in such a way as to realize interest at the assumed rate, will exactly suffice to meet all obligations as they mature, and will be entirely exhausted, both principal and interest, in the process, if the assumptions regarding mortality, age of retirement, amount of annuities, etc., are realized in experience.

[2] Published in full in the *Eleventh Annual Report*.

[3] "If it should be found that the financial resources of the Foundation and the funds which may be availed of by it are insufficient for this purpose then, of the various suggestions which have been made for reducing the benefits of the existing system, we regard a gradual change in the minimum age of retirement as perhaps the least objectionable."—1916 *Report* of the Committee on Pensions of the American Association of University Professors.

number of teachers, (2) to raise the minimum age of retirement, or (3) to cut down the value of the average pension.

The first method has been rejected as inequitable. It is recognized that the financial value of the expectation of a teacher at age 30 is very different from that of another teacher at age 60, but the equity of the expectation, whatever its cash value, is the same. It would be entirely feasible to make a solution of the problem thru either one or the other forms of reduction. If the minimum age of retirement is at once raised to 70 years, the problem would be solved. On the other hand, the same result can be effected by cutting down all retiring allowances about one-third.

The objection to the adoption of either of these measures, to the exclusion of the other, is so weighty that some compromise plan is inevitable. If the minimum age of retirement were arbitrarily raised to 70, not only would such a radical change produce much hardship and disappointment to teachers, but the plans of institutions which have fixed an earlier date of retirement would be upset. While the date at which a teacher ought to retire varies with the individual, to compel all teachers to wait to 70 years of age for retirement would go far to destroy the value of the retiring system both to the teachers and to the colleges.

On the other hand, if a sweeping reduction of allowances were undertaken, the burden would fall with most distressing effect upon those who have the greatest claim to consideration—those who will retire in the near future.

It has been found possible to devise a plan under which the teacher may either have retirement at 65 or the full pension, or such adjustment between the two as may best suit his individual needs.

The moment the matter is closely examined it becomes evident that the question of minimum age at which retirement may be had cannot be separated from that of the amount of the average pension. For example, a retiring allowance of $1500 for man and wife available at age 65, one of $1980 available at age 67, and one of $2370 available at age 70 are actuarially equivalent. The two questions cannot be separately handled: as soon as the amount of money available is definitely limited, a teacher who retires at the age of 70 is equitably entitled to a larger

pension than he would have received had he retired at 65. He cannot equitably claim the same pension at 65 that he could at 70. One other consideration must be recognized. The man within measurable distance of retirement has expectations of a very definite character. To a considerable extent his future is planned upon a stated retiring allowance. He is too old to avail of the advantages of the Teachers Insurance and Annuity Association to provide an annuity to supplement his pension. Men further away from retirement have not framed their life plans upon a definite retiring allowance years hence, and in addition they can by very moderate payment secure annuities supplementing their pensions. Thus a man of 45 by payment of $64 a year could provide a $1000 annuity available between the ages 65 and 68, or a man of 30 by payment of $34 a year could obtain a one thousand dollar annuity contract available between 65 and 70.[1]

A teacher in an associated institution will, of course, be able to make such provision for insurance or annuity as he sees fit thru the Insurance Association, without prejudice to his expectation of a retiring allowance from the Foundation.

Careful actuarial analysis of the problem indicates that the resources available will suffice to support a system of retiring allowances for the teachers who were in associated institutions on November 17, 1915, upon the following rules:

I. The minimum age at which allowances will be granted (except on the basis of disability) shall remain at 65.

II. The maximum allowance available to a teacher shall continue to be computed upon the present formula. Allowance equals one-half active pay plus $400.

III. The maximum allowance shall be available upon the present basis to all teachers reaching the age of 65 on or before June 30, 1923.

IV. The maximum allowance shall be available after June 30, 1923, on the following terms:

Between July 1, 1923, and June 30, 1925, maximum allowance at 66
Between July 1, 1925, and June 30, 1926, maximum allowance at 67
Between July 1, 1926, and June 30, 1927, maximum allowance at 68
Between July 1, 1927, and June 30, 1928, maximum allowance at 69

[1] These figures are on the assumption that in case of death in the interval the accumulation is not returned. An option on the basis of return to the estate of the decedent will also be offered.

V. After June 30, 1928, the maximum allowance shall be available at age 70.

VI. For those whose allowances begin below the age at which the maximum allowance is available according to Rules IV and V the actual allowance shall be the maximum allowance diminished at the rate of one-fifteenth for each year by which the age at which the maximum is available, is anticipated, due allowance being made for fractions of a year.

VII. For those reaching 65 after June 30, 1923, the allowance of a teacher who is unmarried, or whose wife is not living, shall be two-thirds of the allowance as fixed by the preceding rules. In the cases of teachers retiring on a salary of $1800 or less this reduction shall be 15 per cent.

The rules framed above are definite and simple. Any teacher can at once determine from them his retiring allowance. He needs to know only his age and his active pay at the time of retirement.

To illustrate. A teacher aged 57 in May, 1918, will be 65 years old in 1926. Assume that he is married and that his salary is such as to give him a retiring allowance of $3000 under the present rules. Under the proposed plan, $3000 would be his maximum allowance, which he could receive when he became 70 in 1931. If he elected to retire at 65, 66, 67, or 68, in 1926, 1927, 1928, or 1929, he would in each case anticipate the maximum by two years, and his allowance would be $2600; if he retired at 69, his allowance would be $2800. If he were unmarried, his allowance would be two-thirds of these respective amounts at the corresponding ages.

To illustrate again. A teacher aged 50 in May, 1918, will be 65 in 1933. Assume him married and entitled to a maximum retiring allowance of $3000, available at 70. If he elected to retire at 65, his allowance would be $2000; at 66, $2200; at 67, $2400; at 68, $2600; at 69, $2800. If unmarried, or after the death of his wife, he would receive two-thirds of the respective sums at the corresponding ages.

It goes without saying that these rules are not adopted with the expectation that the age 68, 69, or 70 is suitable to the great body of teachers as a time of retirement. Nor is it assumed that the outcome of this action will result in the retention of any large proportion of men to

such age. Any teacher who desires to do so may retire at 65. For those within ten years of retirement the rules are so framed that they may retire with small changes in their expected allowances. The question how long a teacher shall remain in service is one between him and his college.

These measures have been framed upon the basis of exhaustive actuarial computations. Such estimates necessarily involve many assumptions, and the statement of the result in dollars gives a fallacious impression of accuracy. It is impossible to forecast absolutely the rate of interest over long periods, the rate of separation, the result of changes brought about by the war,—all weighty factors. The estimates are believed to be conservative in the sense that they have taken into account all sources of expense. The next five years may show a situation that may make possible a more liberal scale for the future.

It must be clearly understood that the trustees of the Foundation have a stated amount with which to deal, and if the experience of the next five or ten years shows a wide variation from the assumed conditions, they may be compelled to make such changes as may bring the expenditures within their resources.

While the income of the Foundation will thus be devoted for many years to come to the payment of pensions to teachers in the associated colleges, the endowment itself, consisting of fifteen millions of dollars, will remain intact. It will devolve upon the trustees of the Carnegie Foundation of the next generation to determine how they can, at that time, best use the income of this endowment in carrying out the objects designated by Mr. Carnegie in his letter of gift and embodied in the Act of Congress incorporating the Foundation.

The gift of the Founder of this institution was conceived in the most generous spirit. It has enabled hundreds of college teachers grown old in service to retire in comfort and security. As a permanent solution of the problem of the protection of teachers from the risk of dependence, the plan originally adopted by Mr. Carnegie and by the trustees of the Foundation was insufficient. It has served its purpose. The real gain to colleges, both of the associated list of institutions and of those not so related, lies in the fact that the pension problem has been worked out and its solution provided for upon a basis that is reasonable, sound, and

enduring. For fifty years to come the Foundation will devote its income and its accumulated reserve to the fulfilment of the expectations of the teachers admitted to the benefits provided under the old plan. The solution of this question that has finally been reached is made possible by the generous aid of the Carnegie Corporation. It is regarded by high-minded and thoughtful men looking at the matter from a detached and disinterested point of view as a fair and generous fulfilment of the expectations of these teachers. It is believed that it will be so regarded by the teachers themselves. The obligations in this matter do not lie wholly with the trustees of the Carnegie Foundation. There are also obligations upon the teachers and the colleges who have been for twelve years, and who will continue to be for seventy-five years to come, the chief beneficiaries of the trust. The common obligations of trustees and beneficiaries have perhaps been nowhere better stated than in the following words from the President of the American Association of University Professors in his presidential address of last year:

> "The founder's idea was a noble and unique one; himself and his trustees are entitled to our heartiest gratitude and cordial sympathy. The grumbling and even hostile attitude sometimes exhibited is not justifiable. All parties can and should approach the subject in a spirit of desire for frank exchange of views and of mutual support. . . . The situation at the outset was novel; the enterprise was in some degree inevitably experimental and alterable. The trustees were and are morally entitled to make such changes as may seem absolutely necessary; the propriety of fulfilling natural expectations of beneficiaries being as obvious to the trustees as to others. Whatever change of plan is proposed will properly rest for its adoption upon the just and enlightened judgment of the trustees after full deliberation."

The present memorandum aims to set before the teachers of the associated colleges the principles upon which the trustees of the Carnegie Foundation and of the Carnegie Corporation have acted, and to make clear to teachers of all ages the exact nature of the security underlying their expectations. It is not intended to answer in detail the questions pertaining to each individual. The Teachers Insurance and Annuity Association will be incorporated as soon as the committees appointed by the actuarial societies have made their suggestions available. Teachers

in the colleges of the United States and Canada can then obtain from the actuary of the Association full details as to insurance and annuities, as well as any advice they may desire as to the policies suited to individual circumstances. In the Twelfth Annual Report of the Foundation, now going thru the press, the plan of the Teachers Insurance and Annuity Association is fully explained. The trustees of the Carnegie Foundation meet in the latter part of April to restate their rules for the future admission of institutions to the associated list as affected by the establishment of the Teachers Insurance and Annuity Association. It will be understood that the Carnegie Foundation and the Teachers Insurance and Annuity Association of America are entirely distinct organizations under separate boards of trustees,—the former in the eyes of the law a charitable institution operating under a charter issued by the Congress of the United States; the latter in the eyes of the law an insurance company operating under a charter granted by the State of New York and subject to the scrutiny of the State Department of Insurance in exactly the same manner as any other insurance company.

By direction of the Trustees of the Carnegie Foundation:

Nicholas Murray Butler
Robert A. Franks
Arthur T. Hadley
Alexander C. Humphreys
Henry S. Pritchett
Jacob Gould Schurman
Frank A. Vanderlip
Executive Committee.

April 22, 1918.

[*Appendix* II]

THE CARNEGIE FOUNDATION
FOR THE ADVANCEMENT OF TEACHING

REPORTS
ON INSURANCE AND ANNUITIES

BY COMMITTEES OF

THE ACTUARIAL SOCIETY OF AMERICA

AND OF

THE AMERICAN INSTITUTE OF ACTUARIES

1918

THE ACTUARIAL SOCIETY OF AMERICA

FOUNDED 1889

Office of the Society, 346 Broadway, New York. *February 20, 1918.*

DR. HENRY S. PRITCHETT, PRESIDENT,

Carnegie Foundation for the Advancement of Teaching, 576 Fifth Avenue, New York.

MY DEAR SIR: In accordance with your letter of the 19th December, the Committee appointed by the Actuarial Society to advise the Carnegie Foundation and the American Association of University Professors takes pleasure in submitting the following comments.

PROPOSED CHARTER

The charter seems to us to carry out the views expressed in your *Twelfth Annual Report* with regard to the function of the Teachers' Association.

GENERAL PLANS

Your general plans are practically on the same lines as those of a mutual life insurance company, except that you intend "to lift entirely from the policy-holder the load coming from overhead charges." This is to be done by means of a capital and surplus of $1,000,000 which is to be furnished by the Carnegie Foundation. It is assumed that the interest from the fund will be sufficient to pay all managerial expenses. It is not the intention to pay any commissions for procuring new business, or to have agents under salary. The applications for insurance, therefore, would come voluntarily from the teachers, and probably in groups, as the result of a plan prepared by each of the colleges. It is likely that the colleges will pay a proportion of the cost of the insurance and annuity, and there will accordingly be a strong incentive for the teachers to become connected with the Association.

The general plans provide for the issue of the same types of insurance as are granted by insurance companies, but an attempt will be made to push term insurance coupled with deferred annuity policies. It is believed by the founders of the Teachers' Insurance and Annuity Association, that term policies with deferred annuities are the best thing for the teachers.

It is the experience of insurance companies that term policies are the most unsatisfactory and the most disappointing to the insured, of any type of contract. However highly educated a man may be he feels that after paying for insurance a certain number of years, even though it may be at cost, he should have some return for his money. The members of our committee have all had experience in this line, and have found that the holders of Term insurance policies are dissatisfied at the end of the term period. Many of them forget the form of policy for which they applied, and

expect to receive a substantial surrender value, or to have the privilege of continuing the contract without increase in the cost. In this particular we are talking from a wide experience and not from a theoretical basis.

When the Carnegie Foundation started to pension college professors one company prepared a Term policy expiring at age 65, and circularized the colleges with its announcements. The premium rates were low, and to-day on certain of these policies the dividends have reduced the yearly net cost below the net premium according to the American Experience Table with $3\frac{1}{2}\%$ interest. From the standpoint of numbers this movement to issue Term insurance expiring at age 65 was not a success as only twenty-eight policies were issued, of which but twenty are in force at the present time.

So far as concerns the combination of a Term Insurance policy with deferred annuity, several companies have tried this combination and have found practically no demand for it. This may be seen from the experience of one company which in February, 1909, prepared two policies, under one of which Term Insurance was issued to age 65, at which time an annuity became payable. Under the other the insurance was continued for life, but the premiums terminated at age 60 when the annuity began. The force of the agency organization was behind both of these policies equally. To give a comparison of the popularity of these two forms it need only be stated that at the end of 1909 the company had in force 168 Term and Annuity policies, as compared with 1373 Life and Annuity policies. The results of the Term and Annuity policies indicated that this was not a popular contract and it was therefore withdrawn from the market; but to-day there are over 5000 Life and Annuity contracts in force. It may be that by reason of the disciplinary powers of the various universities the faculty members may be induced to take the combination of Term Insurance and Annuity. Many may select this combination because the Carnegie Foundation or the University itself will carry a part of the financial burden. If left absolutely to themselves, however, other influences being equal, a large percentage of the teachers would undoubtedly choose the more common forms of insurance.

The insurance of income has not taken root among the American people, although the prominent companies for a number of years have been issuing policies providing for the payment of the insurance in monthly instalments during a selected period of years, or during a selected number of years and so long thereafter as the beneficiary shall live. These options are contained in practically all the policies issued. Great efforts have been made and are being made by the companies to popularize this form of settlement, but the response has been slight; very few of the beneficiaries avail themselves voluntarily of any of the options of settlement. A small percentage only of the business is issued on the Life Income plans.

Non-Participating *v.* Participating Policies

√ The principal difficulty we have met in connection with your plans is that of making the policies non-participating. It is of course an anomaly to state in the charter that the stockholders are not entitled to any profits or dividends and at the same time to issue policies which are non-participating. The problem, so far as concerns your appeal to the policy-holders, is two-fold; If non-participating policies are issued there will be serious competition with the insurance companies unless a statement is made by the Foundation or Association that the policies will eventually participate in profits. On the other hand, if the policies are made participating dividends may be expected annually of approximately the same percentage as under participating policies of the life insurance companies, and a warning would be necessary that on account of the low rate of premium the dividends would be small.

Your plan was adopted in preference to issuing participating policies, it being contended that dividends would be small and that they must be paid annually. The endeavor has been to make in effect a participating company from a nominal non-participating company and we question whether this has been accomplished.

The vital reason why the proposed company cannot issue participating policies is not stated in your report. Under Section 97 of the New York Law a company issuing participating policies must keep its total expenses, less taxes as a function of the assumed mortality gains and loadings. In any year when only a few policies were issued the assumed mortality gains would be small and as there is no loading no expenses practically could be incurred.

In your report are several statements which amount in effect to a promise that the policies would be participating, as follows:

> *Page* 47: "In the natural order of things, therefore, moderate profits will be realized, and a surplus gradually accumulated. In time these profits will be distributed by the Association to the policy-holders, since its charter does not allow it to accumulate funds for profits, but the Association cannot put this assurance into a contract, nor can it be used in advertising as a means of securing business."
>
> *Page* 51: "While these figures as just stated are not entirely comparable, it remains to be said that, since there is no overhead charge for the business of the Teachers Insurance and Annuity Association, the costs here shown will result in what is the equivalent of a dividend as time goes on."
>
> *Page* 55: "The comparison cannot be made entirely accurate . . . for the reason that . . . some distribution of the surplus of the Teachers Insurance and Annuity Association will doubtless be made which cannot at present be computed."

In addition to this, at the bottom of page 55 an illustration is given of the annuity at age 60, after which, on the top of page 56, is stated:

> "If the accumulating funds realize $4\frac{1}{2}$ per cent interest, the annuity will be \$1300, and the value \$14,457."

The danger of making statements conveying the thought of dividends would always be present under the proposed form and any such statement would probably be a violation of Section 60 of the New York Law, which prevents any illustration, circular or statement of any sort misrepresenting the terms of any policies issued. If these reports, circulars or statements are given out, although truthfully stating facts, it is extremely doubtful whether or not your construction would be upheld by any court.

Of course, the statements given above are not made by the Teachers' Association, and it may be maintained that the Association would not be responsible for any remarks in your Report, but after the Company has been organized there will always remain the danger of some statement relative to dividends causing trouble.

While the Insurance Department of the State of New York has agreed to your policies being issued on the non-participating plan, we question whether a different decision might not be made by another Superintendent, especially if he found that you could pay dividends within a year or two.

We believe that a participating policy should be issued, if the laws of New York would permit it, because there is every reason to believe that after the expenses are met out of the interest on the capital and surplus there should be profits from mortality and from interest earnings in excess of $3\frac{1}{2}\%$ which would justify a dividend at the end of the first or second year, provided a careful selection of risks is made. We have accordingly come to the conclusion that the more satisfactory way would be to have the Law amended so as to eliminate the Teacher's Association from Section 97, which would permit you to issue participating policies.

Medical Examinations

While the plan for insuring the teachers in groups or singly has not been submitted to us, we believe that it is such an integral part of the plan that some reference should be made to it in our report. Two features must be kept in mind; first, that it is advisable to insure the men in classes, if possible; second, that the conditions under which they can be insured in these classes or groups should not be so severe that it would be difficult to comply with the conditions, nor so lenient that it would result in a high mortality.

A general plan of the following description would be satisfactory:

1. Groups of teachers in any college where there were fifty or more might be accepted without medical examination or without personal certification as to their health, provided all applied, provided all were engaged in active service and provided the President of the college made a statement that they were all in good condition.

2. When all the teachers were not insured, it would be safe to accept at least 75% of them on condition that each one gave a personal certificate as to his health, that no one should be accepted unless in active service, and that the President of the college

make a statement as to his knowledge of the health and habits of men who were to be insured.

3. The amount of insurance should be some definite percentage of the salary or some amount determined according to a rule which would preclude selection. For example, it might be decided that the amount of insurance without examination should in all cases be one year's salary or twice one year's salary, but it would not be advisable to have the amount optional. Under an optional arrangement, for example, if there were a choice between insurance for one year's salary and insurance for $10,000, whichever were the greater, those who were not in the best of health or who thought they were not in the best of health would probably apply for the maximum amount, while those who thought they could afford to take a chance on account of their rugged health might apply for small amounts.

4. After the men in the colleges had been insured in the classes or groups, all the new entrants should be accepted only on a proper medical examination, unless the amount were small, in which event some form of certification as to health would be feasible.

Control of Association

Your proposed change in the method of control, as described on pages 46 and 47 of your new draft of the report, appeals to us as being much better than the plan in your previous report. Giving the teachers a voice in the management will in our judgment, result in more colleges taking an active participation in the Association and developing greater interest on the part of the insured.

Policy Forms

The proposed policy forms for life insurance are on the general lines issued by insurance companies but are not, in our judgment, up to date in certain particulars. It seems to us that under ordinary Life, Limited Payment Life and Endowment plans, provision should be made for waiving of premium or for granting other benefits on the insured's becoming totally and permanently disabled; otherwise there would be a strong incentive for the teachers to seek insurance with companies issuing policies with such benefits. Many of the companies also provide that in the event of accidental death, double the face of the policy is payable. We mention these points because the Association should be in a position to compete with life insurance companies in the liberality of its contract.

Two minor matters may be mentioned in connection with the policy; first, that no provision is made for the payment of the face of the policy except in one sum. The life insurance companies are constantly trying to induce the policy-holders to convert the face of the policy into instalments, as experience has shown that a considerable proportion of the insurance is lost through the beneficiaries' lack of knowledge of financial matters. Second, that the privilege to change to other forms of policy is

not granted. This need not be contained in the contract, but should be provided for in the rules.

The following matters are also brought to your attention:—

First, that the right to loans and to surrender values is reserved to the *owner*. This would probably require the consent of the beneficiary.

Second, that the Suicide Clause is limited to one year, while the incontestability clause is for two years. Why not make both of them for the same period, either one or two years?

Third, that the clause regarding Military and Naval service seems to us to call for more detail than is necessary. We believe that much simpler clauses could be adopted. It is not necessary, for example, at this time to state what the extra premium for the war hazard should be although a maximum may be stated. As a matter of fact, the extra premium would depend largely upon the character of the war and the nature of the service. Furthermore, it is hardly necessary to give in such detail the method of determining a refund of the extra premium paid for war service. On the other hand it seems advisable to cover aviation service within the United States.

With regard to loan values, not only are these required by New York State, but are deemed by us to be a right of the insured. We do not believe that the practice of granting loans has resulted in demoralization, and we *do* know that it is not the practice of the companies to encourage loans upon policies, in fact, one of the large companies announces with pride that during the year 1917 the outstanding amount of loans had decreased. This was solely due to the work of its agents and branch office force, who were advised to tell the policy-holders to use their loan values only in case of dire necessity and principally with the object of continuing their insurance in force.

With reference to loan and cash surrender values we desire to call your attention to the fact that the laws of some states require that the policy shall contain a provision that the insurer may defer payment of any cash surrender value or the granting of any loan for a definite period, generally not exceeding ninety days after application for such value.

Under Term policies with terms of more than twenty years provision is made for cash, loan, paid-up and continued insurance values. It should be remembered that these will increase with the duration of the policy to a certain point and then will commence to decrease. The effect of this in the case of a loan would be that there would be many instances in which the reserve value under the policy would be less than the amount loaned. It would be necessary therefore, to require to be repaid each year thereafter the amount of the decrease in the reserve value of the policy. We do not believe it is wise to grant such loan values,—in fact we do not know of any first-class company which has done so.

The Term policies for terms of not more than twenty years contain no provision for non-forfeiture values, except in case the policy is exchanged for another form of policy bearing the date of exchange, in which event 80% of the reserve held under

Term policy will be applied toward the payment of premiums on the new policy. Probably this is the case referred to in the clause headed "Reinstatement" where it is stated that "Unless it shall have been surrendered for its cash value, etc." However, if that is so the wording would seem to be inconsistent as the policy would not have been surrendered in the usual sense of the word through exchange for another. We do not assume that it was the intention to give the insured the privilege to reinstate the Term policy after it had been exchanged for another policy.

Deferred Annuity

With regard to the deferred annuity we question whether it is permissible under the New York Insurance Laws to provide that an insurance contract can be terminated by the Association if the annuitant shall within ten years from the date of the contract withdraw from the profession of teaching. Furthermore, we question whether it would not be a legal discrimination to give a man who withdrew from the teaching profession a cash surrender value, while limiting the man who continues in that profession to a paid-up annuity if he does not desire to continue payment of premiums. It occurs to us that there might be some difficulty in getting some of the State Insurance Departments to approve a contract which provided for a return of the premiums with interest at a rate *not exceeding* 4½% in event of death before the end of the deferred dividend period. The amount due at death should be definite, and not left to a future ruling of the Board of Directors of an Association.

We agree with you that in case of the annuity it should not participate in surplus, because the longer an annuitant lives the smaller is the profit to the Association.

Calculation of Premiums and of Surrender Values

We have checked samples of the calculation, made by your actuary, and find them correct on the basis indicated. With regard to the basis of calculation, we are entirely satisfied with that adopted for insurance; but with regard to annuities, it may be that a slight loss may ensue. The mortality among college professors may be lower than the McClintock table, thereby creating a loss, which may or may not be offset by the excess interest earnings over 4%. It is likely, however, that any loss would be slight, and we do not recommend any change in the basis altho we deem it advisable to draw attention to the fact that the margin for safety will largely depend upon the interest earnings in excess of 4%.

The basis of obtaining paid-up and extended insurance values seems to us reasonable, but we think it is not necessary to have so large a surrender charge, as such charges are hardly required where there is so little expense in procuring the business.

Conclusion

The success of your plans depends principally upon the following:

1. Sufficiency of the rates.
2. Liberality of the policy conditions.
3. Practicability of your organization and method of control.
4. Economy of management.
5. Conservatism in accepting risks.

We have commented on the first three of the foregoing and it is assumed that there will be economy of management and conservatism in accepting risks, but we have deemed it advisable to submit suggestions regarding the acceptance of risks without medical examination.

Yours very truly,

(*Signed*) John K. Gore
Arthur B. Wood
J. D. Craig
Arthur Hunter, *Chairman.*

REPORT TO THE TRUSTEES OF THE CARNEGIE FOUNDATION BY THE COMMITTEE OF

THE AMERICAN INSTITUTE OF ACTUARIES

Appointed to consider a Proposed Plan of The Teachers Insurance and Annuity Association

Introduction

The Committee of the American Institute of Actuaries, appointed at the request of the Carnegie Foundation to consider various questions involved in the establishment of the Teachers Insurance and Annuity Association, has held three extended meetings, one in Detroit and two in Chicago. The plans considered were set forth in the advance proof of the *Twelfth Annual Report* of the President, together with copies of the proposed charter, tables of rates to be employed, and samples of policies of insurance and annuity contracts proposed to be issued. During our conferences covering five days, careful consideration was given to the vital points in the above mentioned report and other matters submitted. We have endeavored to study the proposed plans from the constructive rather than the critical point of view.

Reasons for Existence of Organization

It is necessary at the outset to have clearly in mind the reasons for the establishment of such an organization and to know why it should receive the support of the teachers. There are two reasons which stand out distinctly above others justifying the plan.

The first is that there will be provided through the Carnegie Foundation one million dollars of capital and surplus, the income from which will be available to take care of the overhead expense of the Association. It is further stated that if this income is not sufficient for the purpose, the deficiency will be met by the Foundation. The second reason is based on the tacit understanding that the various educational institutions will coöperate in a contributory way with the teachers in the payment of premiums. Under such a plan the teachers would probably be relieved in the amount of premium payments to the extent of the interest earned on the capital stock and surplus and the share of the premiums contributed by the institutions. Unless the advantage of these substantial benefits is secured through the Association, it is doubtful whether its organization, so far as furnishing insurance and annuities to teachers is concerned, would be worth while.

There are certain other factors whose values are difficult to estimate; among these may be mentioned the social coöperation of the teachers, for example, in extending the business of the Association without agency expenses. It should be noted, however, that legitimate social coöperation may in some cases tend to increase rather

than decrease the cost of insurance. For example, it is contended that there will be a possible saving on mortality due to more favorable experience among teachers than among the average group of insured persons. This factor of saving may prove delusive, because if a liberal policy is adopted in accepting teachers for insurance with respect to medical selection, the ultimate result may be to increase the cost of insurance in the Association.

Organization

We approve the form of the organization as a stock company, with $500,000 of capital stock and $500,000 of surplus, as a proper initial step towards the establishment of an effective Association. After due consideration of the difficult questions raised and discussed in the *Twelfth Annual Report* of the President of the Foundation, with respect to their bearing on the organization and government of the Association, we are convinced that the incorporation as a stock company is the most feasible and practicable plan for a beginning, but we believe that mutualization at some future time should be the ultimate goal. We regret that the Association cannot at once issue policies on the participating plan owing to the fact that the expense limitations set forth in Section 97 of the New York Insurance Law would make it practically impossible for the Association to operate on a participating basis. This Committee recognizes the desirability of starting the Association without the delay which would probably be involved in securing an amendment to the New York Law permitting it to issue participating policies. We believe it is wise that the ownership of the capital stock for the present remain with the Carnegie Corporation, but think it desirable that representative college teachers be included on the board of trustees.

Such an organization should be able to work out the problems of the Association as they arise. In time there will be developed among representative college teachers and policy-holders persons who are qualified to assume responsibilities in the management of the Association and exercise the ripened judgment due to actual experience and contact with the larger insurance problems of the Association. When men of this kind have been trained and are found willing to assume the responsibility it is our judgment that the best interests of the Association will be served by complete mutualization.

Distribution of Profits

From the *Twelfth Annual Report* of the Carnegie Foundation, page 46, we understand the following to be the proposed plan with respect to distribution of profits:

> "The policies issued by the Teachers Insurance and Annuity Association will be non-participating. This is necessarily so, inasmuch as the policies are issued at net cost, that is, at the cost computed on the basis of the mortality table and the rate of interest fixed by the law. This does not mean that there may not be

> accumulations over and above the net cost. Two sources of such profits exist. One is to be found in the fact that the mortality rate for teachers is less than the mortality rate of the legal tables. In the second place the rate of interest fixed by law, three and one-half per cent, is less than that which will be earned on the money. In the natural order of things, therefore, moderate profits will be realized, and a surplus gradually accumulated. In time these profits will be distributed by the Association to the policy-holders, since its charter does not allow it to accumulate funds for profit, but the Association cannot put this assurance into a contract. Nor can it be used in advertising as a means of securing business. The form which such distribution will take will need to be determined by the experience of the company, and by the wishes of the policy-holders."

The report expresses the opinion that it is well-nigh impossible for a company offering insurance at net rates to write participating policies on account of the fact that the laws of many states require that dividends be distributed annually and that annual distributions would be so small as to make it impractical to make the distribution. While this may prove to be the outcome owing to the fact that a heavy mortality has been experienced through liberal selection on the part of the Association or intense personal selection on the part of unsolicited applicants, yet it may transpire in three or four years that considerable profits have arisen, especially in view of the very generous interest income from the invested capital and surplus. In this event it would be desirable to begin the declaration of annual dividends to policy-holders.

The amount of the annual dividends depends upon factors which cannot be estimated in advance, but there would be comparatively little expense involved in making a distribution of annual dividends since notice of dividends would accompany the notice of premiums. Notwithstanding the fact that it is unlikely that the experience of the Association for the first few years would furnish a satisfactory basis upon which annual dividends could be calculated, since, on account of the small number of policy-holders, there might be considerable fluctuation in mortality, still, it would be entirely justifiable to base dividends on an assumed probable excess interest earning and mortality saving, and distribute dividends just the same as though the policies had been issued on a participating plan. Assumptions made should be safely within the margins of past experience and conservative future expectations, and the amount allowed should not exceed the amount actually earned. Such a method would enable the Association to make safe assumptions and at the same time prevent undesirable fluctuations of dividends.

The reduction in premiums through early payment of dividends would be conclusive evidence to the policy-holders that the Association desires to carry out the principle of mutuality with respect to distribution of profits as implied in various portions of the report. Policy-holders are most likely to estimate the value of their insurance on net annual costs, and the declaration of annual dividends would bring this home to them in a very stimulating way even if these dividends are very small.

We believe that the Teachers Insurance and Annuity Association would do well

to return profits in just as direct and simple a way as possible, and furthermore, that the return of profits can eventually be made more direct and satisfactorily under participating policies than under non-participating policies by the indirect plan of a by-law provision as proposed in the *Twelfth Annual Report*.

Selection of Risks

We believe the Association should exercise considerable liberality in the selection of risks, so as to extend the benefits of the Association as far as possible. We understand that this is the position taken by the Carnegie Foundation, and in the *Twelfth Annual Report* it is stated that term insurance will be issued to individuals on medical examination, equivalent to "certification." Of course, such liberality must not extend to the point of insuring individuals who are manifestly not insurable under the usual forms of insurance contract.

When an individual is accepted, it is necessary that he show satisfactory evidence of insurability. When a group is accepted it is necessary to limit the amount of insurance to prevent the poorer risks in the group from receiving policies of relatively large amounts and thus exercising a selection against the Association within this group. The smaller the group, the greater care necessary to avoid adverse selection. Perhaps not fewer than fifty persons should be considered as constituting a group for which a testimonial could be accepted in lieu of a medical examination.

It should be borne in mind that while a lower death rate increases mortality saving it has precisely the reverse effect on annuities. We assume that teachers are willing to support a liberal policy of selection with the full knowledge that a certain proportion of poor risks will be accepted and secure the benefit of insurance at an increased cost to the body of teachers as a whole. This may be regarded as a form of social coöperation which does not decrease the cost. All organizations to-day feel a responsibility for their incapacitated and aged employees. We believe in accordance with this prevailing sentiment and conviction that if a liberal policy is followed in acceptance of risks, and contract provisions, the institutions themselves will be more likely to coöperate in the payment of premiums and support of the Association.

Plan of Insurance

The report lays much stress on the advantages of term insurance to age sixty-five coupled with a deferred annuity beginning at that age. This combination is singled out as of special value to teachers in spite of the fact that years of experience have shown that this type of insurance is not favored by the mass of policy-holders. The policy above proposed is in fact an endowment form of policy in which the element of term protection has been combined in certain proportions with accumulations to provide for the equivalent of an old age annuity except that it lacks some of the privileges of the regular endowment forms.

Every policy of insurance is a combination of term and endowment or annuity in some proportion, and it is not wise to single out a particular combination as the one which will be most desirable for the teachers as a class. The requirements of teachers in insurance and annuity protection are as varied as their individual differences in economic and family conditions. The facts are that the holders of term insurance are inclined to regard their premiums for term insurance as lost when they live to the end of the term, and this accounts to a very large extent for the unpopularity of term policies. A life insurance policy should be adapted to the varying needs of the insured and the very fact that a term policy does not have sufficient reserve to permit of its use for any purpose other than protection against death is a strong argument against it.

It might be urged that the advantage of the above combination over the endowment is the fact that neither the term policy nor deferred annuity could be used as security for policy loan. It has been popular of late to disparage policy loans, on account of the fact that so many beneficiaries have been deprived of protection on account of insurance lost through loans, but little has been said of the amount of insurance that is kept in force because the policy-holder can borrow on his policy. A man on a salary may find it necessary to borrow on his investment in order to pay the premium and in our judgment the average teacher who is paying on a long term insurance contract and deferred annuity takes a chance of losing both that he would not take if his policy were on a form providing loan values such as a limited payment life or endowment with annuity benefits to the insured.

We would suggest for your serious consideration the advisability of issuing limited payment life policies which become paid up at age sixty-five, and also endowments maturing at age sixty-five and seventy both on the limited premium and continuous premium plans. Furthermore, we believe that a sufficiently large number of kinds of policies should be issued so as to meet the various needs and preferences of all teachers.

Suggestions in Reference to Policy Provisions

It is the opinion of this committee that your policy forms should be simple and direct, and that they could be improved and made more attractive by careful revision with special reference to the following points:

(1) By replacing the involved military and naval clause by a simple clause providing for the return of premiums in case of death in such service.

(2) By including a provision that at the settlement upon death or maturity the proceeds may be payable in a lump sum or be taken in instalments. That is, such instalment options should be provided as are now usually available in insurance policies.

On account of the dangers and difficulties of investment of the proceeds of life insurance policies by inexperienced beneficiaries many thoughtful men are now arranging so as to have the proceeds paid in monthly income instalments to the beneficiary.

The policy should provide that the instalments cannot be commuted without the consent of the insured. The amount of the monthly income payments should be participating to the extent of excess interest earnings on the reserve. A satisfactory form of instalment is one providing payment by monthly income for a fixed period as ten, fifteen or twenty years, and as long thereafter as the beneficiary lives.

(3) By including a total and permanent disability clause.

Disability benefits should be made available. We would suggest the usual waiver of premium benefit and also monthly instalment benefits to the insured during disability without deduction from the insurance. Rates and provisions for disability before attainment of age sixty-five would be preferable for this Association. It should be left to the option of the insured to select a policy having the waiver of premium provision alone or both of the disability benefits by paying the extra premiums required therefor.

We understand from the *Twelfth Annual Report*, page 79, that the Carnegie Foundation expects to pay disability pensions to members of the Association on a basis as liberal as funds available for the purpose will permit. This may prove so effective that a total and permanent disability clause will be unnecessary; but until such time as the Foundation is able to frame a more definite policy than exists at present with respect to the payments in case of disability, the prospective policy-holder should have the opportunity to choose a policy containing a total and permanent disability clause, so that the policies of the Association would in this respect be as attractive as those of other insurance companies.

(4) It is not clear why the suicide clause should be limited to one year while the incontestability clause is fixed at two years.

(5) It is hardly desirable to provide loan values on the term policies. The reserve value on such a policy increases for a time during the duration of the policy and then decreases. It requires a good deal of care lest the amount of the loan with interest may exceed the reserve value. This criticism would not apply to a provision for extended insurance.

(6) In the provision regarding occupation, the statement is made that the policy is subject to restrictions made in the application. While we do not have a copy of the application blank, we doubt the desirability of including occupational restrictions since such restrictions could not be enforced except during the first and second years of the policy. If such restrictions are included, they should be incorporated directly in the policy instead of by reference to the application.

(7) In the deferred annuity policy, there is a provision to the effect that if the annuitant shall within ten years from the date of the contract withdraw from the profession of teaching, the contract shall terminate, and the Association will return the premiums paid with interest. We doubt whether this provision is legally enforceable. Furthermore, it might easily be construed as a discrimination among the owners of the same kind of contracts.

(8) In the annuity contracts it is proposed to continue annuity payments to the executors and administrators or assignees of the last survivors until the total annuity payments shall equal the sum of the premiums paid, increased by interest.

Such an arrangement, in our judgment, is not very satisfactory, for it necessitates keeping the estates open, and involves other difficulties.

Instalment to Estate of Beneficiary

In several places in the *Twelfth Annual Report* suggestions similar to the following are made:

> "The annuitant, or his college, or the two together will contract to pay the Association 'level' premiums for a certain amount each year, etc."

It occurs to us that educational institutions upon the payment of a part of the premiums of insurance or annuity contracts are likely to acquire vested interests therein, which may result in a great deal of difficulty. It is, of course, possible to meet some of these difficulties in advance through supplementary contracts, but this phase of the subject should be given careful consideration by the Association.

Mortality and Interest Assumptions

We believe the mortality tables you have adopted and interest assumptions made in insurance and annuity calculations provide ample security to the policy-holders and will enable the Association to meet promptly all its contractual obligations in strict accordance with their terms. The tables of premium rates submitted we believe to be correctly calculated on the basis of the mortality and interest assumptions made.

Very truly yours,

(*Signed*) James W. Glover, *Chairman*
Charles H. Beckett
Franklin B. Mead
Henry L. Rietz.

[*Appendix* III]

THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

RULES FOR THE ADMISSION OF INSTITUTIONS AND FOR THE GRANTING OF RETIRING ALLOWANCES

1918

THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

RULES FOR THE ADMISSION OF INSTITUTIONS AND FOR THE GRANTING OF RETIRING ALLOWANCES

576 FIFTH AVENUE
NEW YORK CITY
APRIL 22, 1918

RULES FOR THE ADMISSION OF INSTITUTIONS AND FOR THE GRANTING OF RETIRING ALLOWANCES

THE act of incorporation, passed by the Congress of the United States, and approved by the President on March 10, 1906, expresses the purpose of the Foundation as follows:

> Section 2. That the objects for which said corporation is incorporated shall be—
>
> (*a*) To receive and maintain a fund or funds and apply the income thereof as follows:
>
> To provide retiring pensions, without regard to race, sex, creed, or color, for the teachers of universities, colleges, and technical schools in the United States, the Dominion of Canada, and Newfoundland, who, by reason of long and meritorious service, or by reason of old age, disability, or other sufficient reason, shall be deemed entitled to the assistance and aid of this corporation, on such terms and conditions, however, as such corporation may from time to time approve and adopt: *Provided, however,* That the said retiring pensions shall be paid to such teachers only as are or have been connected with institutions not under control of a sect or which do not require their trustees, their officers, faculties, or students (or a majority thereof) to belong to any specified sect, and which do not impose any theological test as a condition of entrance therein or of connection therewith.
>
> (*b*) In general, to do and perform all things necessary to encourage, uphold, and dignify the profession of the teacher and the cause of higher education within the United States, the Dominion of Canada, and Newfoundland aforesaid, and to promote the objects of the Foundation, with full power, however, to the trustees hereinafter appointed and their successors from time to time to modify the conditions and regulations under which the work shall be carried on, so as to secure the application of the funds in the manner best adapted to the conditions of the time: *And provided,* That such corporation may by a vote of two-thirds of the entire number of trustees enlarge or vary the purposes herein set forth, provided that the objects of the corporation shall at all times be among the foregoing and kindred thereto.

The trustees, on May 7, 1908, accepted from Mr. Carnegie an additional endowment for the purpose of extending the retiring allowance system to tax-supported institutions.

The executive committee, on February 11, 1913, with the approval of the trustees, accepted from Mr. Carnegie an additional gift for the independent endowment of a Division of Educational Enquiry.

The following rules, as amended by the trustees on April 22, 1918, determine the admission of institutions and of teachers to the benefits of the Foundation.

THE ADMISSION OF INSTITUTIONS TO THE ASSOCIATED LIST

Institutions of higher learning, including colleges, technical schools, and universities, whose work is clearly of college or university grade, may be admitted to participation in the benefits of the retiring allowance system sustained by the Foundation. Such institutions are termed "associated institutions."

APPLICATIONS

Applications on behalf of institutions should be made by the board in which the government of the institution is vested.

ACADEMIC STANDING

In order to be admitted to the retiring allowance system of the Foundation, the essential work of an institution must be that of higher education, and of such a character that graduation from a four-year high school course, or equivalent training, is a prerequisite therefor.

The term "college" is used to designate, in the United States, Canada, and Newfoundland, institutions varying so widely in requirements for admission, standards of instruction, and facilities for work, that for the purposes of this Foundation some arbitrary definition of that term is necessary. The following definition, in force in the state of New York, will be employed:

> "An institution to be ranked as a college must have at least six (6) professors giving their entire time to college and university work, a course of four full years in liberal arts and sciences, and should require for admission not less than the usual four years of academic or high school preparation, or its equivalent, in addition to the pre-academic or grammar school studies."

A technical school, to be eligible, must have entrance and graduation requirements equivalent to those of the college, and must offer courses in pure and applied science of equivalent grade.

No institution will be accepted which is so organized that stockholders may participate in its benefits.

A tax-supported institution must be in receipt of an annual income of not less than one hundred thousand dollars.

An institution not supported by taxation, in order to meet the requirement in regard to endowment, must have a productive endowment of not less than two hundred thousand dollars over and above any indebtedness of the institution.

TAX–SUPPORTED INSTITUTIONS

In the case of tax-supported institutions, the applications must be accompanied by the approval of the governor and of the legislature of the state or province in which the institution is situated. The trustees of the Foundation reserve the right to

decline the application of any such institution if it is subject to a political control or interference which, in the opinion of the trustees of the Foundation, impairs its educational efficiency.

UNDENOMINATIONAL TEST

Institutions of higher learning will be recognized as eligible to the associated list, so far as denominational control is involved, under the following conditions:

1. Colleges, universities, and technical schools of requisite academic grade, not owned or controlled by a religious organization, whose acts of incorporation or charters specifically provide that no denominational test shall be applied in the choice of trustees, officers, or teachers, or in the admission of students.

2. In the case of colleges, universities, and technical schools, not owned or controlled by a religious organization, in which no specific statement concerning denominational tests is made in the charters or acts of incorporation, the trustees of such institutions shall be asked to certify by a resolution to the trustees of the Carnegie Foundation for the Advancement of Teaching, that, notwithstanding the lack of specific prohibition in the charter, "no denominational test will be imposed in the choice of trustees, officers, or teachers, or in the admission of students, nor will denominational tenets or doctrines be taught to the students." Upon the passage of such resolution by the governing bodies of such institutions, they may be recognized as entitled to the benefits of the Carnegie Foundation for the Advancement of Teaching, so far as considerations of sectarian control are concerned.

PARTICIPATION IN CONTRIBUTORY SYSTEM

After April 22, 1918, colleges and universities, to be eligible to admission to the associated list, must have accepted a participation in the contributory plan of old age annuities for their teachers as provided in the *Teachers Insurance and Annuity Association of America.*

DISCONTINUANCE

The trustees of the Carnegie Foundation for the Advancement of Teaching reserve the right to discontinue the privilege of participation in the system of retiring allowances of the Foundation whenever, in the judgment of the trustees, an institution ceases to conform to the regulations maintained by the trustees. Such withdrawal shall not, however, result in the discontinuance of retiring allowances already granted.

RULES FOR THE GRANTING OF RETIRING ALLOWANCES

THE rules for retiring allowances approved April 22, 1918, apply to three groups of teachers, as follows:

A. Teachers in the service of associated institutions on November 17, 1915, and who reach the age of sixty-five on or before June 30, 1923.

B. Teachers who were in the service of associated institutions on November 17, 1915,[1] and who will not have reached the age of sixty-five on June 30, 1923.

C. Teachers entering the service of associated institutions after November 17, 1915, and participating in the contributory plan of annuities maintained by the *Teachers Insurance and Annuity Association of America.*

THE BENEFITS ACCRUING UNDER THE FOLLOWING RULES ARE BASED UPON A CONSERVATIVE ACTUARIAL ESTIMATE OF THE RESOURCES OF THE FOUNDATION. IT IS TO BE CLEARLY UNDERSTOOD THAT THEY ARE NOT CONTRACTUAL AND THAT THE OBLIGATIONS OF THE FOUNDATION DO NOT GO BEYOND THE RESOURCES NOW GUARANTEED TO IT.

A.

RULES FOR THE RETIREMENT OF TEACHERS WHO WERE CONNECTED WITH ASSOCIATED INSTITUTIONS ON NOVEMBER 17, 1915, AND WHO REACH THE AGE OF SIXTY-FIVE ON OR BEFORE JUNE 30, 1923

For these teachers the rules in force on November 17, 1915, remain unchanged, as follows:

RULE 1. Any person sixty-five years of age who has had not less than fifteen years of service as a professor, or not less than twenty-five years of service as instructor or as instructor and professor, and who is at the time a professor or an instructor in an associated institution, shall be entitled to an annual retiring allowance computed as follows:

(*a*) For an active pay of twelve hundred dollars[2] or less, an allowance of one thousand dollars, provided no retiring allowance shall exceed ninety per cent of the active pay.

(*b*) For an active pay greater than twelve hundred dollars, the retiring allowance shall equal one thousand dollars, increased by fifty dollars for each one hundred dollars of active pay in excess of twelve hundred dollars.

(*c*) No retiring allowance shall exceed four thousand dollars.

Retiring allowances based upon age are computed by the formula: $R=\frac{A}{2}+400$, where R = annual retiring allowance and A = active pay.

[1] On this date the trustees passed resolutions looking toward the adoption of a contributory pension plan. These resolutions accompanied the President's report on the new plan, which was sent to the trustees, officers, and teachers of all the associated institutions.

[2] Originally "sixteen;" reduced to "twelve" on November 15, 1906.

Rule 2. Any person who has had twenty-five years of service as professor, or thirty years of service as instructor and professor, and who is at the time either a professor or an instructor in an associated institution, shall, in the case of disability unfitting him for the work of a teacher as proved by medical examination, be entitled to a retiring allowance computed as follows:

(*a*) For an active pay of twelve hundred dollars or less, a retiring allowance of eight hundred dollars, provided that no retiring allowance shall exceed eighty per cent of the active pay.

(*b*) For an active pay greater than twelve hundred dollars, the retiring allowance shall equal eight hundred dollars, increased by forty dollars for each one hundred dollars in excess of twelve hundred dollars.

(*c*) For each additional year of service above twenty-five for a professor, or above thirty for an instructor, the retiring allowance shall be increased by one per cent of the active pay.

(*d*) No retiring allowance shall exceed four thousand dollars.

Retiring allowances based on permanent disability are computed by the formula: $R=\frac{A}{100}(b+15)+320$, where R = retiring allowance, A = active pay, and b = number of years of service.

Rule 3. A widow who has been for ten years the wife of a teacher, who at the time of his death was in receipt of a retiring allowance, or who at the time of his death was eligible to a retiring allowance on the basis of age, or who had had twenty-five years of service as a professor, or thirty years of service as an instructor and professor, shall receive as a pension one-half of the retiring allowance to which her husband was entitled under Rule 1, or to which he would have been entitled under Rule 2 in case of disability.

Rule 4. In addition to the provision for retiring allowances made in Rules 1 and 2, the Foundation will coöperate with institutions on the associated list in the retirement of teachers who have had twenty-five years of service as professor, or thirty years of service as professor and instructor, but who, not being sixty-five years of age, are not eligible for retirement under Rule 1, upon the following basis:

If the institution grants to such a teacher a retiring allowance at its own cost, the Foundation will consider such teacher eligible to a retiring allowance on reaching the age of sixty-five under the rules in force at that time, and at the same rate which the institution has paid in the interval, provided the retiring allowance so paid shall not be less than that to which the teacher would be entitled if he retired under Rule 2 on the ground of disability, and provided further that under no circumstances will the Foundation pay a higher retiring allowance to such a teacher than that to which he would have been entitled had he remained in service until the age of sixty-five and retired under Rule 1. Should a teacher so retired by an institution die before reaching the age of sixty-five, his widow would be eligible under the rules

to receive a pension from the Foundation equal to one-half of that which her husband had been receiving, provided that under no circumstances would such widow be entitled to a higher allowance than that which she would have received had her husband been retired under Rule 1 or Rule 2.

Rule 5. In the preceding rules, years of leave of absence are to be counted as years of service, but not exceeding one year in seven. Librarians, registrars, recorders, and administrative officers of long tenure whose salaries may be classed with those of professors and assistant professors are considered eligible to the benefits of the retiring allowance system.

Rule 6. Teachers in the professional departments of universities whose principal work is outside the profession of teaching are not included.

Rule 7. The benefits of the Foundation shall not be available to those whose active service ceased before April 16, 1905, the date of Mr. Carnegie's original letter to the trustees.

Rule 8. In counting years of service toward a retiring allowance it is not necessary that the entire service shall have been given in institutions upon the associated list of the Foundation, but only years of service in an institution of higher education will be accepted as an equivalent.

Rule 9. In reckoning the amount of the retiring allowance the average salary for the last five years of active service shall be considered the active pay. In case, however, a professor agrees with his institution to continue at any time after reaching the age of sixty-five part time work for a diminished salary, he may do so, and upon his retirement his allowance shall be computed upon the basis of the last five years of full pay. In the case of his death in this interval the pension of his widow shall be reckoned upon the same basis.

Rule 10. In no case shall any allowance be paid to a teacher who continues to give the whole or a part of his time to administration or teaching as a member of the instructing staff of any institution. This rule does not prevent the retired professor from having access to the laboratories of his institution, or from accepting compensation for occasional lectures; but it does not permit him to assume stated academic duties.

B.

Rules for the Retirement of Teachers who were connected with Associated Institutions on November 17, 1915, and who will not have reached the Age of Sixty-Five on June 30, 1923

Teachers in the associated institutions of date November 17, 1915, and who will not have reached the age of sixty-five on June 30, 1923, shall be eligible to retiring allowances under the rules stated under A modified as follows:

(*a*) The minimum age at which retiring allowances are granted on the basis of age shall remain at sixty-five.

(*b*) The retiring allowance as fixed under Rule 1 shall be termed the maximum allowance.

(*c*) The maximum allowance shall be available after June 30, 1923, on the following terms, for those who become 65:

Between July 1, 1923, and June 30, 1925, at 66
Between July 1, 1925, and June 30, 1926, at 67
Between July 1, 1926, and June 30, 1927, at 68
Between July 1, 1927, and June 30, 1928, at 69

(*d*) After June 30, 1928, the maximum allowance shall be available at age seventy.

(*e*) For those whose allowances begin below the age at which the maximum allowance is available the actual allowance shall be the maximum allowance diminished at the rate of one-fifteenth for each year by which the age at which the maximum is available, is anticipated, due allowance being made for fractions of a year.

(*f*) For those reaching sixty-five after June 30, 1923, the allowance of a teacher who is unmarried, or whose wife is not living, shall be two-thirds of the allowance as fixed by the preceding rules. In the cases of teachers retiring on a salary of eighteen hundred dollars or less this reduction shall be fifteen per cent.

(*g*) Rule 2 and Rule 3 are not affected by these modifications of Rule 1, except that no allowance to a teacher under Rule 2 shall exceed that which would accrue to him at age 65 under Rule 1.

(*h*) The allowance granted to a widow of a teacher shall be based upon the rules which applied to her husband at the time of death or of his retirement.

The rules framed above are definite and simple. Any teacher can at once determine from them his retiring allowance. He needs to know only his age and his active pay at the time of retirement.

To illustrate. A teacher aged fifty-seven in May, 1918, will be sixty-five years old in 1926. Assume that he is married and that his salary is such as to give him a retiring allowance of three thousand dollars under the present rules. Under the proposed plan, three thousand dollars would be his maximum allowance, which he could receive when he became seventy in 1931. If he elected to retire at sixty-five, sixty-six, sixty-seven, or sixty-eight, in 1926, 1927, 1928, or 1929, he would in each case anticipate the maximum by two years, and his allowance would be twenty-six hundred dollars; if he retired at sixty-nine, his allowance would be twenty-eight hundred dollars. If he were unmarried, his allowance would be two-thirds of these respective amounts at the corresponding ages.

To illustrate again. A teacher aged fifty in May, 1918, will be sixty-five in 1933. Assume him married and entitled to a maximum retiring allowance of three thousand dollars, available at seventy. If he elected to retire at sixty-five, his allowance would be two thousand dollars; at sixty-six, twenty-two hundred dollars; at sixty-

seven, twenty-four hundred dollars; at sixty-eight, twenty-six hundred dollars; at sixty-nine, twenty-eight hundred dollars. If unmarried, or after the death of his wife, he would receive two-thirds of the respective sums at the corresponding ages.

C.

Rules for the Retirement of Teachers entering Associated Institutions after November 17, 1915, and participating in the Contributory Plan of Annuities maintained by the Teachers Insurance and Annuity Association of America

Teachers entering associated institutions after November 17, 1915, as well as teachers in institutions admitted in future to the associated list and who are participants in the contributory plans of annuities maintained by the *Teachers Insurance and Annuity Association of America* shall be eligible to the following privileges:

1. There is no fixed age of retirement, since the teacher holds a deferred annuity contract of which he may avail at such age as may be agreed upon by the teacher and his college.

2. The amount of the retiring allowance is based upon the joint contributions of the teacher and his college and their accumulations.

3. The Trustees of the Foundation have adopted resolutions which, without imposing a legal obligation upon the Foundation, state its intention to provide from its income, if necessary, such amounts as may be required to secure to teachers in the associated colleges and universities an average return of four and one-half per cent on the payments made by them to the Teachers Insurance and Annuity Association of America for the purchase of deferred annuities,—said sums to be paid at the time of retirement or in case of death.

4. The Foundation will grant to such teachers disability allowances upon the following terms:

(*a*) Disability shall be interpreted to mean total permanent disability as certified by a medical examiner designated by the Foundation.

(*b*) To be eligible to a disability allowance the teacher must have contributed for not less than five years toward an old age annuity and must have been during this period in active service.

(*c*) When retired on the ground of disability the teacher will assign his annuity policy to the Foundation.

(*d*) The Foundation will provide an annuity of two-thirds the amount the teacher would have obtained if he had continued to age sixty-five average contributions equal to the average of the five years immediately preceding his disability. The annuity payments will continue for life, or in case of death, until the accumulation to the credit of the teacher has been returned to his estate. Annuity allowances will be limited to a maximum of three thousand dollars, and are subject to discontinuance in

case of the annuitant's recovery of health. In case of such recovery the unexpended portion of the contributions made by and for the teacher and their accumulations will remain to his credit.

To illustrate. There is deposited to the credit of a teacher, aged thirty, $10 a month until he is disabled. If he continued at this rate till sixty-five, he would have provided a life annuity of approximately $1000. Upon becoming disabled he assigns his annuity contract to the Foundation and receives a disability pension of approximately $666.66. This he will receive as long as his disability continues. If after receiving it for three years the teacher should die, the Foundation will continue to pay to his estate $666.66 annually until all of the contributions to his credit and their accumulations have been used. If after making deposits annually for a term of five years at the rate of $10 a month the rate of deposit should be increased to $20 a month, he would provide an annuity of approximately $1800 at age sixty-five, and his disability annuity would be approximately $1200.

(*e*) This disability benefit will not be available, without further action of the trustees of the Foundation, to those entering the associated institutions after January 1, 1938. By that time it is believed that accurate information will be available, so that the disability benefit can be included in the regular annuity contract at a rate approximating its actual cost. This cannot be done until such information is secured from the experience of teachers in the matter of disability.

5. These benefits are not applicable to teachers in professional departments whose principal work is outside the profession of teaching.

All of the foregoing rules were approved at a special meeting of the trustees of the Carnegie Foundation for the Advancement of Teaching held on April 22, 1918.

(*Attest*) Charles F. Thwing,
Secretary of the Board of Trustees.

INTERPRETATIONS OF THE PRECEDING RULES BY THE EXECUTIVE COMMITTEE

ACADEMIC STANDING

The executive committee has ruled that in determining the academic standard of institutions fourteen points or units shall be accepted as an equivalent of the high school work, a point signifying a course of five recitations weekly throughout an academic year of the high school (June 7, 1906).

The executive committee has ruled that institutions in other countries than the United States, the Dominion of Canada, and Newfoundland are not eligible to participate in the retiring allowance system (March 28, 1907); that institutions whose work is primarily research, and not teaching, are not eligible to participate in the retiring allowance system (September 15, 1909); that an institution which contains a small college of good standards but also a preparatory school, an agricultural school, or an elementary music school, does not represent with sufficient distinctness and clarity the organization and conception of a college to be eligible to participate in the retiring allowance system (January 20, 1910); that is, that until the financial load which the Foundation has assumed is more completely known, additions to the number of associated colleges will be made with great caution (November 20, 1912); and that in cases where a school or college that has been an integral part of an institution on the accepted list becomes in effect an independent institution, controlling its own standards of admission and graduation, such school or college must make new application for admission to the accepted list (May 14, 1915).

TAX–SUPPORTED INSTITUTIONS

The executive committee has ruled that the Foundation cannot, in lieu of the application of the legislature, accept the application of the board of regents of a state university even when by the state constitution the board of regents is independent of the legislature in regard to the acceptance of endowments and gifts (June 4, 1909); and that in admitting state universities containing colleges of agriculture, these latter colleges are for the present excluded (June 4, 1909).

UNDENOMINATIONAL TEST

The executive committee has ruled that the Foundation cannot accept the waiver by a denominational assembly of the right to confirm the election of the trustees of a college as equivalent to a legal abrogation of this provision in a college charter (November 12, 1908); that the election of the members of a board of trustees by several constituencies, one of which is a denominational assembly or assemblies, the respective number of the trustees elected by each constituency, and therefore the control of the board, to be determined later by a by-law of the board, is a plan for collegiate government which falls within the prohibition of the charter of the Foundation (December 19, 1907); that the appointment of the trustees of a college, subject to confirmation by the board of education of a denomination, is within the prohibition of the charter of the Foundation (May 5, 1910); that the endowment of a professorship, to be held by a college so long as its president and a majority of its trustees are members of, or in doctrinal sympathy with, a specified denomination, constitutes such a college, within the rules of the Foundation, a sectarian institution (June 21, 1906); that application to the Foundation for admission to the list of associated colleges, and the passage of the resolution certifying to undenominational status as required by the rules of the Foundation, create a relation which is inconsistent with the appearance of the name of the institution in an official list of denominational colleges and with the official endorsement of such colleges by denominational assemblies (January 23, 1907); that when the name of an associated college appears in a denominational publication, it should be put in a separate list from those under actual denominational control, under the caption: "The following institutions are not connected with the . . . Church by any legal ties, nor are they subject to its control" (March 28, 1907); that an institution which appeals to a denomination for support on the grounds of its denominational standing is ineligible to the list of associated colleges, without regard to formal denominational status (November 15, 1906); that a proposed college charter which would read: "A majority

of the faculty must be members of Protestant churches, but shall be so chosen that the members of no one church shall have a majority," is within the prohibition of the charter of the Foundation (April 9, 1908); that a college in which a minority of the trustees is elected by denominational assemblies, if conducted free from denominational partisanship, is eligible to participate in the retiring allowance system (January 20, 1910); and that the professors in the divinity school of an associated college, which is declared by the trustees of the college to be primarily designated for the education of candidates for the ministry of a specified denomination, are not eligible to the privileges of the retiring allowance system (July 26, 1906).

DISCONTINUANCE

The executive committee has ruled that the action of an associated college in passing a resolution that future elections of trustees shall be presented to a denominational assembly for confirmation is considered as a notification of the desire of the college to sever its relation with the Foundation (September 30, 1909).

RULES FOR THE GRANTING OF RETIRING ALLOWANCES

The executive committee has ruled that a retiring allowance is granted under the rules in force at the date of granting, and an allowance is not increased or diminished by a subsequent change in the rules, even if the professor does not actually retire until after such change (May 2, 1907). Thus, professors cannot draw allowances upon the basis of the abrogated service rule of the Foundation, even if they had been eligible to retire under the rule when it was in force (June 9, 1910); and that if the grant of a retiring allowance is not followed within a reasonable time by actual retirement, the allowance must come before the executive committee as a new application (October 8, 1907).

Rule 1

Instructors were made eligible to the benefits of the retiring allowance system by an amendment adopted by the trustees on November 18, 1908. An instructor is held to be a college or university teacher to whom is assigned independent teaching or responsibility for the conduct of laboratory work or of classes under the direction or supervision of a professor or head of a department. The term is not intended to include demonstrators, mechanicians, laboratory helpers, or other assistants who are not charged with the responsibility for the conduct of college classes, nor is it held to include those who give any considerable part of their time to gainful occupations other than college teaching. The Foundation reserves the right to decide in all doubtful cases what constitutes service as an instructor.

Rule 2

The executive committee has ruled that a professor over sixty-five years of age cannot be retired upon an allowance according to this rule (June 9, 1910), and that a disability allowance shall in no case be larger than the retiring allowance would have been had the disabled teacher been sixty-five at the time of his retirement (April 22, 1918).

The executive committee has ruled (April 20, 1911) that the policy of the Foundation is to grant temporary disability allowances only in cases of disability which are not supposed to be permanent. On October 31, 1912, the committee voted that until further action on the part of the trustees, temporary retiring allowances shall not be granted.

Rule 3

The provision for widows was merely permissive until May 7, 1908, when the trustees made it mandatory.

The executive committee has ruled that this rule does not apply to the widows of the recipients of a temporary disability allowance, whose service as a professor has been less than twenty-five years (December 19, 1907); and that the intention of the rules is that a pension to a widow shall cease upon her remarriage (February 6, 1908).

Rule 4

The executive committee has ruled that in cases of applications made under Rule 4, the retiring allowance shall be that to which the applicant would be entitled were he to retire under Rule 2, unless the committee directs otherwise (May 14, 1915).

Rule 5

The executive committee has ruled that a superintendent of buildings is not eligible (January 23, 1907); that assistant treasurers, assistant bursars, superintendents of grounds, and chief engineers are not eligible, nor the holder of the office designated as "head of a house" in women's colleges (January 20, 1910); that assistant librarians, occupying scholarly positions similar to those of assistant professors, are eligible (February 24, 1910); that in any one institution not more than one officer in the treasurer's department can be eligible (January 19, 1911); that a physical director of a college or university is not eligible unless he is an actual member of the faculty and a teacher of hygiene (November 15, 1911); and that the position of secretary to the president of a college or university does not render the holder eligible (November 15, 1911).

Rule 7

The executive committee has ruled that it cannot waive this rule (November 15, 1906), and that it applies in the case of a professor who retired from active service before April 16, 1905, and who resumed teaching temporarily in order to qualify for a retiring allowance (October 8, 1907).

Rule 8

The executive committee has ruled that service as "emeritus professor" with salary may be counted (June 7, 1906); that the president and the treasurer (May 9, 1906) and the secretary of the Carnegie Foundation (June 8, 1911) are within the privileges of the retiring allowance system; that a limited period of service spent by a professor of an associated college in the American Classical School at Athens (March 28, 1907), the School of Classical Studies at Rome, the American School in Palestine, the Archaeological Institute of America (November 12, 1908), and the American Academy at Rome (April 29, 1913) will be counted in reckoning his retiring allowance; that professors who may go from a college or university to engage in the work of scientific research under the Carnegie Institution of Washington may, in determining their retiring allowance, count years spent in research, whether for a longer or shorter time, as if spent in the work of a college professor (December 19, 1907); but that this privilege cannot be extended to those who begin with service in the Carnegie Institution of Washington, and later transfer to the service of an associated college (June 4, 1909); that teachers in the Carnegie Institute shall be eligible to retiring allowances from the Carnegie Foundation for the Advancement of Teaching upon the same terms as teachers in the associated institutions (May 15, 1914); that the privileges of the retiring allowance system cannot be continued to professors who go for a limited number of years from colleges to scientific service under the United States Government (October 19, 1911); that service as the principal of an academy connected with an associated college cannot be counted (December 19, 1907); that a demonstrator in a technical school does not hold a title representing service equivalent to that of a permanent instructor (January 14, 1913); and that professors, associate professors, instructors, or other officers of accepted institutions eligible to benefits of the Carnegie Foundation, who may enlist in the land or naval forces of the state or nation, or who engage in industrial or other enterprises or activities recognized by the Foundation as contributory to the success or efficiency of such forces, shall have their pension rights kept alive during the continuance of the present war (March 30, 1917).

Rule 9

The executive committee voted that the payment of retiring allowances be made monthly, checks being mailed on or about the 25th of each for the current month (May 9, 1906); that in applying the rules for calculating retiring allowances the calculation shall be made to the nearest multiple of five above the actual value given by the rules (June 7, 1906); that allowances shall remain in force for thirty

days after the death of the recipient (January 20, 1910); and that the same practices shall apply to pensions for widows (April 6, 1916).

Rule 10

The executive committee has ruled that a retired professor cannot draw an allowance while acting in the capacity of advisory dean of a college, that is, supervising the installation and arrangements of courses and the selection of professors (May 5, 1910); and that a retired professor cannot teach in the summer school of the institution with which he was connected (April 20, 1911).

Continuing the name of a retired professor on the active faculty list of his institution is not justified either from the standpoint of the university or of the Foundation (January 21, 1916); that the custom of permitting men who are on pensions to give courses to those who may be candidates for a degree seems inconsistent with the acceptance of a pension (January 21, 1916); that a teacher may not receive his retiring allowance while carrying on the work of a teacher in a secondary school, but if he had earned the right to a retiring allowance, he may claim this at the end of his secondary school service (November 12, 1908); that a professor in an institution not on the associated list to whom a retiring allowance had been granted, but who desired to postpone the acceptance of the allowance and undertake in the meantime partial work as a professor, could not be guaranteed that the retiring allowance would be regranted at the end of the period, but that the case would come before the committee as a new application (October 8, 1907).

LIST OF ASSOCIATED INSTITUTIONS

Amherst College
Amherst, Massachusetts

Bates College
Lewiston, Maine

Beloit College
Beloit, Wisconsin

Bowdoin College
Brunswick, Maine

University of California
Berkeley

Carleton College
Northfield, Minnesota

Carnegie Institute of Technology
Pittsburgh, Pennsylvania

Case School of Applied Science
Cleveland, Ohio

Central University of Kentucky
Danville

University of Cincinnati
Cincinnati, Ohio

Clark University
Worcester, Massachusetts

Thomas S. Clarkson Memorial College of Technology
Potsdam, New York

Coe College
Cedar Rapids, Iowa

Colorado College
Colorado Springs

Columbia University
New York City

Cornell University
Ithaca, New York

Dalhousie College and University
Halifax, Nova Scotia

Dartmouth College
Hanover, New Hampshire

Dickinson College
Carlisle, Pennsylvania

Drake University
Des Moines, Iowa

Drury College
Springfield, Missouri

Franklin College of Indiana
Franklin

Grinnell College
Grinnell, Iowa

Hamilton College
Clinton, New York

Harvard University
Cambridge, Massachusetts

Hobart College
Geneva, New York

Indiana University
Bloomington

Johns Hopkins University
Baltimore, Maryland

Knox College
Galesburg, Illinois

Lawrence College
Appleton, Wisconsin

Lehigh University
South Bethlehem, Pennsylvania

Leland Stanford Junior University
Stanford University, California

McGill University
Montreal, Quebec

Marietta College
Marietta, Ohio

Massachusetts Institute of Technology
Boston

University of Michigan
Ann Arbor

Middlebury College
Middlebury, Vermont

University of Minnesota
Minneapolis

University of Missouri
Columbia

Mount Holyoke College
South Hadley, Massachusetts

New York University
New York City

Oberlin College
Oberlin, Ohio

University of Pennsylvania
Philadelphia

University of Pittsburgh
Pittsburgh, Pennsylvania

Polytechnic Institute of Brooklyn
Brooklyn, New York

Princeton University
Princeton, New Jersey

Purdue University
Lafayette, Indiana

Radcliffe College
Cambridge, Massachusetts

Rensselaer Polytechnic Institute
Troy, New York

Ripon College
Ripon, Wisconsin

University of Rochester
Rochester, New York

Rose Polytechnic Institute
Terre Haute, Indiana

Smith College
Northampton, Massachusetts

Stevens Institute of Technology
Hoboken, New Jersey

Swarthmore College
Swarthmore, Pennsylvania

University of Toronto
Toronto, Ontario

Trinity College
Hartford, Connecticut

Tufts College
Tufts College, Massachusetts

Tulane University of Louisiana
New Orleans

Union University
Schenectady, New York

Vassar College
Poughkeepsie, New York

University of Vermont
Burlington

University of Virginia
Charlottesville

Wabash College
Crawfordsville, Indiana

Washington and Jefferson College
Washington, Pennsylvania

Washington University
St. Louis, Missouri

Wellesley College
Wellesley, Massachusetts

Wells College
Aurora, New York

Wesleyan University
Middletown, Connecticut

Western Reserve University
Cleveland, Ohio

Williams College
Williamstown, Massachusetts

University of Wisconsin
Madison

Worcester Polytechnic Institute
Worcester, Massachusetts

Yale University
New Haven, Connecticut

April, 1918.

Total—74

PART III

PRESENT DAY PENSION PROBLEMS

PENSION ENQUIRIES

The interest aroused by recent reports of pension commissions and the campaigns for new laws in New York City, Pennsylvania, and elsewhere, together with the discussions conducted during the past three years by the Committee on Salaries, Tenure, and Pensions of the National Education Association are bearing fruit. Frequent enquiries are received by the Foundation as to the soundness of local pension systems. Still more important, however, are the enquiries conducted by those whose immediate welfare is more directly concerned. These investigations, altho not of the character of actuarial valuations, often afford an adequate basis for determining whether the fundamental principles of a pension system are sound, and frequently serve as indications at least of its financial validity. Such enquiries are sufficiently valuable to set up that mental unrest and disturbance that will not be quieted until all threats of danger—bankruptcy and inability to meet obligations—are removed.

Of such a character are the investigations made in Ohio by Mr. George Ruetenik, Secretary-Treasurer of the Committee on Teachers Retirement Fund of the Ohio State Teachers Association, and in California by Mr. Will C. Wood, Commissioner of Secondary Schools. The Ohio pension law is not state-wide, but permits local authorities to establish pension funds for their teachers. Mr. Ruetenik limits himself to an investigation of the Cleveland Fund, established in 1906. This is regarded as the strongest of more than twenty teachers' pension funds in Ohio. He finds that the excess of the income over disbursements has been nearly stationary since 1913–14, and that while the assets per annuitant have been decreasing since that date, the pension disbursements have more than doubled in the last five years. The investigation discloses the fact that the entire balance on hand of the Cleveland Fund is needed to pay the present annuitants if their average age is about 68 years; if it is lower, the present rate of pensions cannot be paid out of the existing funds; "in either case there is no reserve left, nothing to satisfy the accrued liabilities or the claims on the fund of the two thousand contributory teachers who are still in the service." The Committee of which Mr. Ruetenik is secretary adopted in 1917 the following fundamentals for a proposed Ohio Teachers Retirement Law: The system must be state-wide, state-managed, and based upon actuarial computation. Contributions by the teachers and the public should be equal, individual accounts being kept for each teacher. The state should take over the accrued liabilities of existing local systems. The retirement allowances should consist of annuities derived from teachers' contributions and equal pensions derived from the contributions of the public, with a maximum pension of $500 a year. Refunds of teachers' contributions with compound interest should be made in cases of death or retirement. Provision should be made for retirement on account of disability. The adoption of a system based on these principles would at once give the Ohio teachers the protection of a retirement plan on which they could place full reliance and which would not be burdensome to the state.

Commissioner Wood comes to the same conclusion as Mr. Ruetenik after investigating the finances of the California pension system. His suggestions for reform are, however, less happy. The plan is based on teachers' contributions, a total of $360 being expected from each teacher before retirement; five per cent of the inheritance tax each year, a fluctuating sum that cannot serve as the basis of calculation; income and interest derived from investments; the usual miscellaneous but unreliable sources such as donations, legacies, and gifts, and appropriations from the State Legislature, on which there has so far been no call, as the system is only in its fifth year. "It seems reasonably certain," writes Mr. Wood, "that in three or four years at most, the expenditures of the fund will exceed the income. In the circumstance, the friends of the retirement salary should begin to give careful consideration to measures for safeguarding the fund." The safeguards suggested are the introduction of an age requirement of fifty-five years in addition to thirty years of service, twenty instead of fifteen, as at present, being in California; the increase of monthly contributions after fifteen years of service to $2 instead of $1; the requirement of twenty-five years of service for a disability allowance; and the payment of contributions every six months instead of monthly. These measures may protract the existence of a system that is fundamentally unsound, since neither the contributions nor the other sources of income bear any relation to the pension; the age of retirement would still be somewhat early, no protection would be offered for the first twenty-five years in case of disability, and no refunds of contributions made in the case of death or withdrawal from service. If the system is bolstered up by the safeguards suggested, it will be subject in a very few years to more investigations similar to the present, and the burden will be constantly shifted to a new generation of teachers and the state treasury with every likelihood that in time it will prove too great to be borne. Mr. Wood's enquiry should, however, prove of considerable value, if it stimulates further investigation of the progress that has been made elsewhere in the development of sound principles.

The opinion is coming to be widespread, however, that the proper time for a general study of pensions is not when a fund is on the brink of bankruptcy, but in anticipation of legislation. The New York State Legislature, which was inundated at its last session by a flood of pension bills, has followed the second course and appointed a commission of five members to investigate the subject of retirement, pensions, allowances, and annuities for state and municipal officers and employees. The principle has been well enunciated in the following resolution recently presented to the common council by the Milwaukee Association of Commerce, "That all legislation dealing with the subject of pensions as applied to the public service of Milwaukee be preceded by a comprehensive study of the subject of pensions, bringing to such study the aid of expert knowledge and actuarial experience in order that all existing pension funds and those that may be created may be constructed upon a scientific basis and assure that solvency and stability which must accompany them."

NEW JERSEY PENSION AND RETIREMENT FUNDS COMMISSION

One of the indirect results of improvident and ill-advised pension legislation is the stimulus given to the introduction of numerous pension bills either to amend existing laws or to make new provisions for those not already covered. This fact has, of course, been well illustrated in the interminable private pension bills introduced in Congress every session. It has not been generally recognized that a somewhat similar effect is produced in state legislatures by the haphazard disposition of demands for pension laws. Faced by such a situation and recognizing that "The Legislature cannot during the busy weeks of its session ascertain the conditions and facts surrounding these demands, and deal fairly with those who would receive the benefit of legislation of this class and the taxpayers whose money is thus appropriated," and that "Hastily considered legislation may provide pensions or retirement funds for public servants to an amount that is unreasonably large, or, on the other hand, provide inadequately or entirely neglect other public servants, whose services should demand equal recognition," the Senate and General Assembly of the State of New Jersey in 1917 resolved upon the appointment of a Commission to investigate and report upon the various pension and retirement funds of the state. According to the terms of the resolution, no further pension legislation is to be considered until the Commission brings in its report. The investigation was conducted on behalf of the Commission and with the coöperation of the Bureau of State Research under the direction of Mr. Paul Studensky. The reports,[1] simple and devoid of technicalities, must carry conviction with the public of New Jersey who in the long run must bear the burden of faulty pension systems. At the same time they serve to corroborate the mass of evidence that has already been produced in New York City and Illinois, that the defects of existing pension legislation are not local, and that they can all be traced back to an original misconception of the purposes of a pension as a form of charity to those distressed on account of disability or old age. The illusory character of the benefits promised to public employees in a great variety of state and local services in New Jersey is quickly exposed by subjection to the simple logic of mathematics. The failure, either actual or imminent, of the present systems furnishes in itself a strong argument for that reform which has the support both of mathematics and of the social demands of a pension system combined.

The State of New Jersey with an estimated population of a little more than 3,000,000 and employing about 33,000 men and women in its various public services has no fewer than sixty pension systems operating under twenty-two enactments. The num-

[1] The following reports have been issued already: Report of the Pension and Retirement Funds Commission, 1918. New Jersey Bureau of State Research, *State Research*, Consecutive No. 8: Report of the Pension and Retirement Fund Commission. Part I, A statement of the contents of an Act for the Establishment of a Retirement System for Employees of the State of New Jersey. Part II, An Estimate of the Probable Cost to the Employees and the State of the Proposed Retirement System. Consecutive No. 10: Teachers' Retirement Systems in New Jersey. Their Fallacies and Evolution. Consecutive No. 11: Police, Firemen's, and other Local Employees Pension Systems in New Jersey. Consecutive No. 12: Present Condition of the Teachers' Pension and Retirement Systems.

ber of employees, excluding teachers, covered by these plans varies from 6 in Lodi to 788 in Newark. Local pride and local initiative could surely go no further than this. And yet the absurdity of the situation is shown in the following analysis of the pension schemes: "Some were permissive in character, others were mandatory; some established funds and required employees' contributions, others placed the burden entirely upon the city; some set up pensions for length of service and not for disability or death, or *vice versa*, others provided pensions for both contingencies; and some applied to employees in first class cities, or in other class cities, while others applied to employees of a certain group in any municipality." This entire absence of a guiding principle in the legislation is clearly indicated by the fact that in three police pension systems the same pension is granted to a retiring policeman in spite of differences in length of service, age, amount contributed, and the consequent cost of the benefit. According to the Report, "Scientific principles have not been employed in the enactment of pension laws, and it cannot even be said that legislation on the subject has advanced steadily on a policy either of growing liberality or of increasing soundness. . . . There has not been sufficient care taken to correlate the various systems, or to improve upon past legislation by making use of the actual experience in the different municipalities."

The actuarial valuation of the police and firemen's funds, as might have been expected from systems that depend generally on contributions of 1 per cent of salaries of employees supplemented by "miscellaneous" sources, shows an enormous deficit. Not only are the contributions utterly inadequate, but the miscellaneous sources such as fines and rewards, proceeds from balls and bazaars, or from certain taxes, "are incidental, not recurring regularly, and of an uncertain amount, cannot to any extent be relied upon for the building of a fund." In view of the fact that the cost of these benefits is never estimated, it is not surprising that no attempt is ever made to relate the funds raised to the pensions to be granted. The valuation made by the Commission indicates that the provision of liberal benefits, typical in New Jersey, for superannuation, ordinary disability, and disability or death in the performance of duty, would require for policemen annual contributions from the time of entrance into service of 8.34 per cent of salary and for firemen 7.77 per cent of salary. This estimate takes no account of present members who would have to pay, if police, 17.13 per cent of their salaries annually, and, if firemen, 13.20 per cent, for the benefits enumerated. Deficits have already occurred in nearly all of the oldest funds; some have drawn upon their capital; in all the proportion of the cost of pensions to the annual salary roll is rising rapidly—the annual outlay on pensions has already reached 10 per cent of the payroll in some funds, and in all it is expected that it will eventually be equal to 20 and even 25 per cent of the payroll. This is a burden that the public will undoubtedly refuse to carry. In its own interests as well as those of its employees, the logic of events points to the substitution for the existing plans of contributory systems along the lines recommended by the Commission for the employees of the state. Altho not

mentioned in the reports, the desirability of a unified state system for the public employees of all but the largest municipalities might well be considered in any proposals for reorganization.

The detailed and illuminating history of the two pension systems for teachers with which New Jersey is blessed confirms the criticisms that have been passed on them in previous reports of the Carnegie Foundation. Both systems, the Teachers Retirement Fund and the State Pension Fund, were conceived as philanthropies and maintained by sentiment. As the Secretary of the Retirement Fund wrote in 1897, "we have hearts ready to respond to our needy ones and hands willing to work for them." This statement is, of course, not open to challenge, and if the claims of the Fund had continued to rest on its philanthropic purpose, it would never have been exposed to criticism. But the extravagant claims made by those responsible for its administration since its inauguration invite closer scrutiny. The value of a scheme that is dangled before the teachers of a state and even of the whole country as being a "prudent investment," "by far the best investment of their lives" for teachers, and "the best insurance in the universe" must be measured by the standards that it presumably sets up for itself.

The history of the Fund is well known. It was established by state act in 1896, as a voluntary association for pensioning disabled teachers, and in a brief history of twenty years has been amended no less than six times, in 1899, 1900, 1902, 1903, 1906, and 1907. During this period membership has been urged on teachers by appeals to professional loyalty and by hectoring methods until in 1900 it became compulsory on new entrants and special inducements were offered to attract teachers in service. The contributions beginning at 1 per cent of salary with a minimum total contribution of a sum equal to 20 per cent of final salary for those retiring in the first five years have risen to 2 per cent of salary for those who taught ten years or less, $2\frac{1}{2}$ per cent for those who taught from ten to fifteen years, and 3 per cent for those who taught more than fifteen years, with a total contribution at the time of retirement of a sum equal to the first year's annuity or 60 per cent of salary. Originally teachers leaving the service were given a refund of one-half of their contributions, but this privilege was revoked in 1906. The contributions were to be supplemented by donations, legacies, gifts, and other miscellaneous sources. In 1906 the state was induced to bear the expense of administration. Teachers "incapacitated from performing the duties of a teacher" could after twenty years of service be retired on allowances equal to one-half of average salary during the last five years of service, with a minimum of $250 a year, increased in 1907 to 60 per cent of the basis, and a maximum of $600, raised in 1907 to $650. The Board could prorate the allowances and exercise its discretion in granting requests for retirement.

Taken on its face this is simply an ordinary and common example of a bad pension scheme. Interest attaches to it, however, on account of its internal history. The system has been subject to criticism ever since its inauguration. It was condemned

in an able actuarial article in the *Newark Evening News* of May 20, 1896. An actuarial valuation in 1905 proved the fund to be bankrupt. It has been subjected to criticisms in the Teachers Associations of the state. In spite of these direct evidences of failure, and in spite of the indirect evidences of instability that might have been read in the numerous apologetics, the membership campaigns, the drives for miscellaneous funds, and the disturbingly frequent changes in the law, the fund has managed to protract its existence for twenty years. The imminent exhaustion of its funds, a recent actuarial valuation, the present report of the Commission as well as the difficulties of the State Pension Fund have combined to force a recognition of failure and need of reorganization.

The fundamental fallacy running throughout the history of the system is the failure to recognize that a plan that claims to be established on the principles of insurance has liabilities to every one of its contributors. What really happened, however, was that the contributions of the young were not put aside for their own future benefit but employed to pay the claims of the old members. So long as these claims could be met the Fund was regarded as a going concern, but when the liabilities began to mount, as they must in any pension plan, and to equal the total income, only then was it recognized that something was wrong. Instead of a complete reorganization, however, the existence of the faulty system was prolonged by the six amending acts. In order to bolster up the system the Secretary indulged from time to time in her own interpretation of liabilities and bankruptcy, and in her own methods of confounding the false prophets, experts, and actuaries who realized the weaknesses of the Fund. These statements are no less astounding than interesting: astounding that a profession, presumably intellectual, should have tolerated their repetition, and interesting because the type of mind is representative of amateur thought about pensions the country over. Referring to the promises of the Fund, Miss Allen writes, in 1904, "What are they? The Fund promises half-pay to those teachers who may be granted annuity as long as there is sufficient money to give such half-pay, but when there is not enough money to do this, annuities shall reduce pro rata. This is the law. This covers all the promises of the Fund. Therefore, if annuities were to be reduced to one-half, or one-quarter, or one-tenth, or one-twentieth, etc., the Fund would still be honorably and honestly and completely keeping its every promise." Greater caution than this the "prudent" investor in "the best insurance in the universe" could not ask, for since "Bankruptcy in the law means inability to pay legal obligations when due, it must be apparent that as annuities under the law become due only to the extent of the money available for their payment, the Fund can never have legal obligations which it is unable to pay." In view of this "impregnable position" the Fund could report each year that it had "no liabilities" and "a surplus over and above all liabilities" for the year. And yet, in spite of it, the responsible administrators of the Fund were compelled to do all in their power to increase the number and amount of the contributions, and to appeal at frequent intervals to a

sympathetic public for those miscellaneous funds which the false prophets, the experts and actuaries, ignorant "of the generous hearts of the American people or of the loyalty and enterprise of the public school teachers of the state of New Jersey," maintained to be unreliable sources of revenue. As a matter of fact, the total amount obtained from these sources in twenty years was $39,000 as compared with total contributions of $1,968,500 and disbursements of $1,656,000.

Only the plain logic of events could convince those who choose to follow a line of argument of this kind. The founders of the Fund had no conception of the problem involved, a fact that might at that time have been excusable had not the case been made clear by the writer in the *Newark Evening News*. When the actuary was invited in 1905 to make a valuation, he found no statistics available to show the separation or the ages of the members, and the same conditions confronted him in 1917. The recommendation made in 1905 that contributions should be related to the ages of the teachers was ignored in the new act of 1906. In 1917 the valuation of the Fund showed that the liabilities to those teachers already retired were $2,324,651.77, a sum that exceeds the total receipts in twenty years from teachers contributions, miscellaneous sources, and interest. It is impossible to believe that the state will continue to lend its implied sanction to a scheme that is as unsound as the New Jersey Retirement Fund, whose failure financially was a foregone conclusion from its inauguration, and whose continued existence serves the interests neither of the teachers, nor of the schools, nor of the public.

The rapidly increasing liabilities of the State Pension Fund, the Teachers 35-year Service Half Pay Pension, renders the time opportune for a reorganization of the whole system of retiring teachers in the state of New Jersey. This fund was established in 1903 specifically to provide a method for taking care of a teacher who was incapacitated after forty years of service. Altho this teacher recovered after the establishment of the plan and returned to duty, it continued on the statute-books, and after five amendments in 1906, 1907, 1911, 1912, and 1914 now provides for the retirement of teachers on half pay after thirty-five years of service in a public school of which twenty-five years must have been served in New Jersey. The system is administered by the state commissioner of education and the funds are provided from the state railroad taxes, deducted from the apportionment for school purposes. The teachers make no contributions to the fund. The co-existence of the two systems under different management has enabled several teachers to retire on pensions equal to 110 per cent of their final salaries. The burden on the state plan has increased rapidly, since each of the amendments referred to made the terms of retirement more liberal. The cost has at no time been estimated, for in its early years the demands on the fund were not noticeable. As they began to increase, however, the amount began to attract the attention of the legislators. The number of pensioners has increased as follows:

1903	1	1911	125
1904	1	1912	155
1905	1	1913	185
1906	7	1914	222
1907	26	1915	275
1908	48	1916	348
1909	65	1917	369
1910	100		

The annual amount of the pension roll during the last few years has been $150,000 in 1915, $176,000 in 1916, and $211,000 in 1917, while for 1918 it is estimated that the cost will be $246,000. The total liabilities of the plan on account of present teachers are estimated to be $24,350,000, and the annual requirements will rise until they exceed 10 per cent of the payroll.

The only solution to which the reports of the Commission point is the reorganization of the systems now in existence and their unification under state management. As they are at present, the two pension plans fail to meet any of the demands of a sound system. They continue, as they began, to be merely philanthropies doling out a charity to those who need it on account of incapacity or old age. A system is needed that will inaugurate a new era in the development of pensions in New Jersey, offering sound and reliable protection to teachers, established on the advice of experts, and providing for the coöperation of the public and the teachers. Such a plan, carefully thought out at its inception with due consideration of all the purposes that it is to promote, will not need legal amendment every few years or quibbling with terms, or the frail bulwark of the right to prorate. Such a plan will be in a position to carry out its obligations to the teachers honorably and honestly and completely as those terms are usually understood and commonly accepted.

DISABILITY ALLOWANCES FOR TEACHERS

What constitutes "incapacity to render satisfactory service as a teacher" or "disability such as to disqualify a person for teaching"? It would be extremely difficult to find an adequate solution of this question on the basis of our present knowledge. A satisfactory answer is, however, essential, since more abuse has crept into the administration of pension systems thru the careless interpretation of the meaning of disability than from any other cause. Retirement boards are too ready to confuse temporary breakdowns with permanent incapacity, while the applicant, no matter how young in age or service, feels entitled to an allowance by virtue of the protection she has purchased by her contributions. Lax administration of any privileges under a pension scheme is necessarily demoralizing; from the actuarial standpoint it can undermine the most soundly organized system. The haphazard method of dealing

with disability may be illustrated even in the newly reorganized system for New York City teachers, in which the retirement board recently granted disability allowances subject to later confirmation by the medical referees — a practice somewhat akin to prescribing for the patient first and making the diagnosis afterwards. A teacher who retires at the age of forty years has a life expectancy of twenty years, if a man, and twenty-three years, if a woman. With few exceptions, no existing pension system provides the loading necessary to furnish disability protection, and under most systems the contributions are scarcely adequate to provide even an old age pension. It follows, therefore, that a few disability allowances in a small system will very soon reduce it to bankruptcy.

In very few systems is there any requirement in the pension schemes of careful medical examination before a disability allowance is granted, and in a still smaller number is there any system of periodical reëxamination. There are accordingly few statistics to afford a basis for answering in the first place whether a teacher by virtue of her profession is subject to any one disease more than another, and secondly whether that disease is likely to involve permanent incapacity. It is clear, for example, that a teacher suffering from an infectious disease like tuberculosis should not be permitted to work with children; on the other hand, what is the obligation of a retirement system to such a teacher who may be able to pursue another occupation under better conditions? It is clear, too, that a person suffering from chronic throat affection or impaired hearing is not thereby debarred from following another vocation than teaching. To what extent would such a teacher be entitled to retirement on a disability allowance? To refer such cases as these to medical boards does little more than furnish professional confirmation of the disability without indicating in the present state of our knowledge whether such disability involves permanent incapacity to render satisfactory service. Professional opinion of teachers, supervisors, and others must decide the latter point, and that can partly be done on the basis of statistics that will show the number and ages of those retired on account of disability, the nature, duration, and recurrence of the disability. Only when such information has been soundly established will it be possible to decide whether an applicant for a disability allowance should be retired permanently or temporarily, and further it would then be possible to determine whether an additional loading is necessary to take care of disability cases.

The most satisfactory information on the incidence of disability among teachers is contained in the annual reports of the Teachers Retirement Fund of Philadelphia and in a report by Dr. L. Dublin on the Physical Disability of New York Teachers.[1] The first of these reports deals primarily with teachers who apply for a retiring allowance; the second is based on a study of 3877 records of absences of more than three days each during the school year 1914–15 by a statistician of the Metropolitan Life Insurance Company.

[1] *School and Society*, vol. iv, pp. 564–569 and 602–607.

The Philadelphia experience is valuable since it covers a period of ten years and its administration has been carefully safeguarded by the requirement of certification of disability both by the applicant's physician and a physician appointed by the retirement board. The table follows:

Disability	*1907–11*	*1912*	*1913*	*1914*	*1915*	*1916*	*1917*	*Total*
General Debility	21	6	4	4	3	6	1	45
Neurasthenia	49	8	14	18	16	11	2	118
Mental Debility	1	2	1	0	0	3	0	7
Tuberculosis	10	1	0	1	0	2	1	15
Impaired Vision	7	4	5	0	1	2	2	21
Impaired Hearing	6	2	3	0	2	2	2	17
Chronic Throat Affection	8	2	2	1	1	0	0	14
Heart Disease	9	4	4	0	1	3	4	25
Rheumatism	3	1	0	3	3	1	0	11
Injury	1	0	0	0	0	0	0	1
Miscellaneous	0	0	0	0	0	0	4	4
Total	115	30	33	27	27	30	16	278

These figures included both full annuitants, who have had thirty years of service, and partial annuitants, who have had from five to thirty years of service in addition to disability. Fourteen per cent of the latter recovered sufficiently after a year or two of rest to return to active service.

For New York City the following table gives the diseases that accounted for the absence of teachers in 1914–15:

Disease or Condition	Males *Number*	Males *Per cent of Total*	Females *Number*	Females *Per cent of Total*
Influenza	48	20.8	739	20.3
Tuberculosis of the lungs	6	2.6	32	.9
Acute articular and chronic rheumatism combined	10	4.3	90	2.5
Neurasthenia, nervous exhaustion	7	3.0	321	8.8
Diseases of the heart	7	3.0	58	1.6
Laryngitis	3	1.3	82	2.2
Acute bronchitis	4	1.7	100	2.7
Chronic bronchitis	1	.4	149	4.1
Pneumonia (broncho-, lobar, etc.)	5	2.2	54	1.5
Tonsilitis	16	6.9	396	10.9
Diarrhea and enteritis	2	.9	107	2.9
Non-venereal diseases of the genito-urinary system and annexa	6	2.6	119	3.3
Maternity	—	—	30	.8
External causes	7	3.0	138	3.8
All other diseases and conditions	109	47.2	1,231	33.8
All diseases and conditions	231	100.0	3,646	100.0

It will be noticed that while neurasthenia accounts for nearly half of the cases of disability in the Philadelphia retirement system, among the New York City teachers

the total number of cases was only 328. Among the women teachers, the rate per thousand subject to this form of disability increased with age up to the period 45 to 54. The average duration of the disability among the women was about 30 days, while over 41 per cent of all the cases were more than one month in duration. It would be a fair conclusion that nervous disorders do not constitute a serious danger to teachers. Dr. Dublin concludes on this subject that "While the work (of teaching) is admittedly exacting in its demands upon the supply of nervous energy, it is quite possible that some cases of neurasthenia and nervous exhaustion may be traceable to the nervous constitution of teachers and not especially to the work which they perform." The examination of the figures exposes another fallacy, that teachers are peculiarly liable to pulmonary tuberculosis. The figures show, according to Dr. Dublin, that "in spite of the high proportion of pulmonary tuberculosis, the actual rate in relation to the number employed is in all probability as low, if not lower, than that found in other professional groups of corresponding ages."

In relation to the whole question of disability allowances the general conclusion of the New York study is valuable. "Consideration of the facts brought to light in this survey warrants the conclusion that the occupation of teaching has no very deleterious effect upon the vitality of the teachers. The death rate is indisputably low. The sickness rate among teachers is likewise low." It would be a fair deduction, therefore, that the problem of disability among teachers is not serious. The probability is that when properly safeguarded and administered the cost of allowances on account of disability would not be great. If the cost has proved burdensome hitherto, it has been due largely to the inadequate medical supervision and to the confusion between permanent and temporary disability. Protection against the latter should be provided, but the protection can probably be furnished most satisfactorily apart from the general retirement system. There will still remain the problem of determining what constitutes permanent disability such as to disqualify a person for teaching. The solution of the few cases that will come under this category must await the collection of more adequate information than is at present available.

INDUSTRIAL PENSIONS AND THE STANDARD OIL COMPANY

The development of pension systems for employees in the industrial field has apparently not yet been affected by the reform movement which is slowly making itself felt in the systems now being established for teachers. The Standard Oil Company, for example, has this year inaugurated a scheme of benefits and annuities for its employees which provides benefits in the case of death, accident, or sickness, as well as pensions on retirement on account of old age or disability. The plan is characterized by almost all of the faults that have been pointed out by recent studies of social insurance and pension principles, and it involves financial liabilities that may seriously

embarrass even the Standard Oil Company. It is unnecessary here to discuss the general benefits; the rules provide for the regular retirement of men at the age of 65 and of women at the age of 55 after twenty years of service, or for retirement at the discretion of the Board of men at the age of 55 and of women at the age of 50 after twenty years of service, or for retirement, also at the discretion of the Board, of employees totally incapacitated after ten years of service. The allowance granted in case of retirement consists of 2 per cent of the average annual pay during the ten years preceding retirement for each year of active service. A minimum allowance of $300 and a maximum of 75 per cent of the average pay employed as a basis is established. The plan is to be maintained wholly by the Company, which "has set aside a fund estimated as sufficient to cover its liability" and will add "such annual appropriations as may be necessary to maintain the fund in the proper ratio to the total annuities then in force." The Company reserves the right, however, to reduce the rate of all annuities for future annuitants, "should these appropriations prove by experience to be in excess of an amount that in the opinion of the Board is justifiable."

In view of the widespread attention that this plan of the Standard Oil Company has attracted and the claim that is made for it as a contribution toward the solution of the vexed question of industrial unrest, it is pertinent in this connection to publish the results of a study[1] of what is perhaps the oldest employees welfare plan in this country. On May 1, 1880, the Baltimore and Ohio Railroad established the first organization in the United States for the administration of a railroad employees relief fund. The primary object of this plan was to relieve the company and the employees from being called upon to make contributions in aid of employees distressed by sickness, accidental injury, old age, and death. Provision was here made for aged employees who reached the age of 65 and had contributed regularly to the Relief Association in any amount. If the contributions were continued until the contributor reached the age of 65, the contributor was entitled to receive an annual allowance for life of ten cents on each dollar he had paid in and an addition of one-half cent on the dollar for every year his contributions had continued. It will be noted that nothing more was intended than to provide the employees with an opportunity to protect themselves against poverty in old age; there was no consideration, for example, of the problem of improving the efficiency of the service or of promoting coöperation between employers and employees. Further, the amount of the pension was uncertain and held out but slight inducements to the employees. It is not surprising, therefore, that in 1882 the Secretary of the Relief Association wrote in his report: "I regret to report that the Annuity Feature has not prospered in the same ratio as that providing relief for disablements. The subject of annuities is a new one in this country and the small countenance given the pension features of other benevolent associations shows that our people have not yet realized the importance and value of this form of protection against want in old age." In fact, the pension feature attracted but one con-

[1] A study made for the Carnegie Foundation by Professor G. E. Barnett of Johns Hopkins University.

tributor between 1880 and 1889, when the charter of the Relief Association was repealed. In 1884 the Company decided to establish a non-contributory pension plan, providing for voluntary retirement at 65 and at the Company's discretion at 60 years of age of employees who had been in service ten consecutive years and had been members of the Relief Association for four years. The age of retirement was raised in all cases to 65 in 1889. The amount of the pension is determined by the amount of premium paid by the retiring employee as a member of the Relief Association. At the time of the inauguration of this pension feature there was turned over to it by the Relief Association $86,000, and the Company agreed to pay $25,000 annually together with $6000 interest accruing on the $100,000 endowment of the Relief Association, provided that this sum was not required for other purposes.

During the first three years (1885–87), 195 employees were placed on the pension roll while the plan was being put into operation. From 1888 to 1915 the number of pensioners in five-year periods was as follows:

	Total Number	*Annual Average*
1888–92	87	17
1893–97	240	48
1898–1902 [1]	194	39
1903–7	296	59
1908–12	657	131
1913–15 (three years only)	501	167

The total number on the pension roll at the end of the five-year periods was as follows:

	On Roll at End of Year
1892	201
1897	292
1902	336
1907	442
1912	787
1916	1,062

The relations of these figures to the number of members of the Relief Association, a convenient basis since membership in the Association is a qualification for retirement, is shown in the accompanying table:

	Membership	*Pensioners 25 Years thereafter*	*Percentage of Membership*	*Pensioners 30 Years thereafter*	*Percentage of Membership*
1883	15,989	(1908) 511	3.2	(1913) 862	5.4
1884	16,848	(1909) 586	3.5	(1914) 923	5.5
1885	17,002	(1910) 667	3.9	(1915) 1,036	6.1
1886	18,297	(1911) 708	3.9	(1916) 1,062	5.8
1887	21,226	(1912) 787	3.7		
1888	21,211	(1913) 862	4.1		
1889	20,081	(1914) 923	4.6		
1890	21,722	(1915) 1,036	4.7		
1891	21,587	(1916) 1,062	4.9		

[1] The decrease in this period is due to the fact that pensions were not granted in 1899 and 1900.

It is obvious from these figures that the probable number of pensioners cannot be predicted in advance with a great degree of accuracy. Much depends on the stability of employment which affects the turn-over; much upon the normal increase in the number of employees due to trade expansion and so on.

It follows, therefore, that uncertainty attends the most important feature of such a pension plan, important alike to the Company and to the employees, especially if the Company reserves to itself the right to prorate the pensions. Another factor that must be taken into consideration is the increase of wages which is reflected in the amount of the pension. In the Baltimore and Ohio system the average monthly pension increased from $12.27 in 1885 to $22.22 in 1916. The effect of these factors on the total cost is well shown in the financial history of the fund.

The pension fund was evidently established in the expectation that the sum transferred from the Relief Department and the annual payment of $25,000 per year would be sufficient to build up a considerable surplus, the interest on which would materially aid in the payment of pensions. In a very brief period, however, the payments for pensions almost equaled the income; very little addition, therefore, was made to the surplus. In 1899 and 1900 the granting of new pensions was discontinued temporarily. In 1901 the Company increased its annual contribution to $75,000 and the granting of new pensions was resumed. For some years thereafter the expenditures were less than the receipts, and the surplus increased from $190,402 in 1903, to $332,667 in 1906. By 1905, however, the expenditures were almost equal to the Company's annual contribution and the contribution was increased to $82,550. At this time it was still clearly the policy of the Company to build up an endowment fund for the pension feature. The rapid increase in the expenditure caused in 1908 an encroachment on the surplus. This encroachment continued to increase each year.

THE FINANCES OF THE PENSION FEATURE

Fiscal Year Ended	*Payments to Pensioners*	*Amount appropriated by Company*	*From Subsidiary Companies*	*Other Receipts*
				$85,991[1]
Sept. 30, 1885[2]	$7,354	$31,000		2,683
" " 1886	18,125	31,000		5,517
" " 1887	20,669	31,000		5,755
" " 1888	23,438	31,000		1,760
" " 1889	24,160	28,000		1,020
" " 1890	25,100	30,500		2,059
" " 1891	27,894	31,000		2,260
June 30, 1892[3]	22,381	24,750		3,215
" " 1893	31,954	29,500		5,767
" " 1894	34,457	31,000		4,750
" " 1895	34,800	31,000		6,423

[1] Transferred from Relief Fund.
[2] First payments to pensioners in February, 1885.
[3] Fiscal year changed from September 30 to June 30; includes only nine months.

Fiscal Year Ended	Payments to Pensioners	Amount appropriated by Company	From Subsidiary Companies	Other Receipts
June 30, 1896	$34,726	$37,000		$13,233 [1]
" " 1897	46,346	31,000		18,695 [1]
" " 1898	50,242	31,000		13,703 [1]
" " 1899	52,117	31,000		8,008
" " 1900	49,026	31,000		3,364
" " 1901	55,830	75,000		7,541
" " 1902	63,143	75,000		6,767
" " 1903	64,730	75,000		7,881
" " 1904	67,199	75,000	$93,823	8,177
" " 1905	73,322	82,550		12,579
" " 1906	82,972	82,550		13,245
" " 1907	95,310	82,550		13,526
" " 1908	112,356	82,550		13,220
" " 1909	129,247	82,550		12,215
" " 1910	157,273	82,550	32,215	10,244
" " 1911	174.746	82,550		7,589
" " 1912	193,908	82,550	17,261	5,557
" " 1913	212,645	146,000		
" " 1914	234,292	234,292		
" " 1915	266,538	266,538		

The following table shows the operations of the fund during the period the surplus was being used for current expenses:

	Surplus at End of Year	Received from Company	Interest	Pensions
1905	$320,447	$82,550	$12,574	$73,322
1906	332,667	82,550	13,238	82,972
1907	332,130	82,550	13,525	95,310
1908	314,100	82,550	13,220	112,356
1909	278,050	82,550	12,215	129,247
1910	215,922	82,550	10,239	157,273
1911	157,031	93,334 [2]	7,564	174,746
1912	67,727	99,820 [2]	5,526	193,908
1913				212,645
1914				234,292
1915				266,538

In 1911, the payments for pensions were $174,746.57 and the total receipts of the fund only about $90,000. The deficiency in 1913 completely wiped out the remainder of the surplus and the Company appropriated $146,000 to pay the claims. Beginning with 1914, the Company has appropriated the sum necessary to pay the entire cost of operation and no surplus is kept in the fund.

It is obvious that the increase in the cost of maintaining a non-contributory pension system, the type that is most common in the industrial field, is altogether out of proportion to the increase in the number of employees, while a new addition to

[1] Receipts include amounts transferred from Relief Fund.
[2] Including contributions of subsidiary companies.

this number does not make an impression on the pension fund for twenty or thirty years. It is also clear that the cost of such a pension system can bear no stable relation to operating expenses, since the pension represents an accumulated debt for past services, for the payment of which no reserve has been set aside. It might, of course, be argued that in the case of a wealthy corporation this is a matter of little importance. Even if this objection is accepted as valid, there still remain the important questions —What objects is such a pension system intended to promote and are they attained?

As is the case in most pension systems, that of the Baltimore and Ohio Railroad Company was conceived of as a method of making "provision for those employees who, by reason of age or infirmity, are relieved or retired from the service by the Company." The system was planned primarily as a charity and approached wholly from the point of view of the needs of the aged employees. The chief function of a pension system is to provide protection against the risks of life, and freedom from anxiety for the future. Incidentally the coöperation between employers and employees for this purpose serves to remove discontent and to promote continuous and loyal service. While there are no figures to indicate the "turn-over" of the employees of the Baltimore and Ohio Company, it is known that it is large from various indications, such as the low death rate and the enormous number of lapses in the Relief Feature, the age grouping of the employees, which indicates that relatively few remain with the Company beyond the age of 45, and the relatively small number remaining to pensionable age. The prospect of a pension twenty or more years in the future, therefore, weighs very little with most employees. It is, however, the general opinion among the men and officials that the pension feature does become a matter of interest to those over 55, men who in any case probably could not secure as good positions in other employment as they now hold. It follows that, since the pension privilege is not prized or its present value is not recognized, fear of losing it thru a strike or any other form of opposition to the Company's policy, such as membership in a union, is not a strong factor except with the older men. As a disciplinary measure, a non-contributory pension plan can be used with effect chiefly against the older men, and this fact in itself only serves to engender the suspicion, always present but frequently unwarranted, that the power of the Company is abused either by unnecessary severity against men approaching pensionable age or by reducing them in grade shortly before retirement in order to effect a reduction in the cost of the pension. Whether justifiable or not, this suspicion is universal and robs the pension system of its greatest value—the promotion of mutual trust and coöperation. Indeed, it is doubtful whether a non-contributory plan, which holds out the promise of a benefit in the distant future, contingent on the discretion and generosity of the employer, can have any but a negative influence, since it continues to perpetuate a system of feudal relationship between employer and employees that the sounder social philosophy underlying the contributory system is endeavoring to eliminate.

In the first number of the *Lamp*, a magazine commenced by the Standard Oil Company at the same time that the plan of annuities and benefits was inaugurated, it is recognized that there has been failure to work out wholly satisfactory relations between the partners in American industrial development—Capital and Labor. "The most of the difficulty has been the loss in personal relationship." To restore this personal relationship the Company is providing insurance, housing, and recreational facilities, the pensions described earlier, and quarterly joint conferences between representatives of the Company and of the employees. While this is an earnest of the intentions of the Company, it is to be regretted that the Company failed to consider the greater part that a sound pension system might have played in their new plan. The experience of thirty years of the Baltimore and Ohio Railroad Company in providing pensions as well as insurance against accident, sickness, and death fails to indicate that the non-contributory system succeeds in promoting continuity of service, team-play, or a sense of partnership, which the *Lamp* considers essential in the industrial democracy of to-day.

PART IV
EDUCATIONAL ENQUIRY

ENGINEERING EDUCATION

The Foundation has just issued, as its Eleventh Bulletin, A Study of Engineering Education, which has been in process of development during the past four years in coöperation with the Joint Committee on Engineering Education of the National Engineering Societies.

Engineering education was established on a large scale only fifty years ago on the basis of the experience of foreign countries, particularly France. Since then, Applied Science has made marvelous progress, and in order to meet that progress, the original curricula of the schools have been modified here and there and from time to time in a haphazard way. The result is that modern engineering curricula lack coherence and unity and have for a number of years been the object of criticism by the engineering profession.

Some ten years ago, the Society for the Promotion of Engineering Education appointed a committee to make a comprehensive study of the situation, and this committee associated with it delegates from the five great national engineering societies. This joint committee has been coöperating with the Carnegie Foundation in this study, and the Bulletin just issued is the result of their united labors for the past four years. The Bulletin was prepared by Dr. Charles R. Mann, formerly associate professor of physics in the University of Chicago, now chairman of the advisory board to the War Department Committee on Education.

The origin of the present system of engineering schools is traced in detail and its characteristics, both good and bad, are frankly stated. Its operation is studied mainly from the point of view of the effect upon the student, and there is a careful examination of entrance records and college courses, as well as a brief summary of the current methods of instruction. On the basis of this analysis of the present situation, the larger problems of engineering education are considered to be those of admission, content of courses, faculty organization, and curriculum. The treatment culminates in a definition of each of the larger problems in terms of the requirements of the profession and of the young men who wish to enter. The chapters on admission and on testing and grading describe a series of experiments carried out by Professor E. L. Thorndike of Columbia University in an effort to secure a more rational method of measuring engineering ability.

The constructive portion of the Bulletin presents numerous suggestions as to ways and means of solving the problems thus defined, in an effort to reach the general principles which seem best qualified to help each school in solving the problem according to its own peculiar circumstances. Among the suggestions may be mentioned the necessity for more objective methods of rating and testing students and more accurate records of achievement; the need for closer coöperation among the several departments of instruction at each school; the introduction of practical experience with engineering materials into the Freshman year; and an increase in the emphasis placed upon the humanities and humanistic studies.

The final chapter, entitled The Professional Engineer, presents the results of an extended study of the demands of the engineering profession, and indicates that these demands can be fully met by the application of the principles that are developed in the preceding chapters. The thesis is set up that the chief lack in engineering education is the failure to recognize the importance of values and costs in all engineering work, and ways and means are suggested by which this idea may be emphasized to advantage both in the technical and the humanistic work. Engineering education is shown to be but one branch of all education, and it is suggested that the methods of improving both are identical. The Bulletin, therefore, has a wider interest than its title would imply and may be read with profit by educators of all kinds.

THE PREPARATION OF TEACHERS

THAT portion of the Missouri study that has to do with the preparation of public school teachers in normal schools and in city training schools is now completed and in press. The accumulating weight of the report together with the need of verifying its considerable statistical material has retarded its appearance beyond the original expectation; difficulties of printing under existing conditions have also contributed to the delay.

Altho technically a study of a situation in Missouri, the report deals with certain problems of supply and preparation of teachers that confront, in one form or another, every state in the Union. And altho concerned primarily with normal schools, it has been necessary likewise to take into account the relations of other institutions that prepare teachers, as well as the part played by state administrative agencies. It will be found, therefore, that the conclusions arrived at in the report affect, often radically, many features in our whole educational structure including that of higher education.

There is no need to anticipate here the suggestions made in a publication so soon to appear. It may be said, however, that its authors have proceeded upon the apparently valid assumption that the next quarter century of American development will see the general equilibrium of forces greatly altered in favor of a vigorous educational emphasis. Without this emphasis democratic peoples can hardly retain or deserve supremacy. The problem thus becomes one of selection and adaptation for the needs of a new era. Free public schooling has passed its merely universal stage, and must settle down to the less showy, but more significant task of genuine education. Far more necessary than mere expansion of the educational plant or new forms of training is the insistence on prolonged contact between each future citizen and skilled, strong spirited teachers who can show him the way. If the generation gone has seen each child brought to school, the generation to come should make each teacher not a pedagogue, but as nearly as may be an artist in human materials. The foremost feature of "reconstruction," therefore, or rather of our coming educational superstruc-

ture, is to be found in the development of a mature, fully representative and competent body of instructors for a new type of citizenship.

Whatever may prove to be the feasibility of the specific suggestions made in the report as to methods whereby this advance may be accomplished, I am of the opinion that this general point of view is correct and will receive emphatic endorsement from those who are most thoughtful for our national future.

The work of revising the original draft of "Curricula for the Professional Preparation of Teachers," referred to in the Twelfth Annual Report, is well advanced. The mass of criticism and opinion received for this undertaking from many sources throughout the country proved to contain an extraordinary wealth of suggestion, and indicates not only the widespread interest in this topic, but also the success with which controversial subjects of this nature may be discussed thru brief but carefully matured, written comment. There can be no question that a careful digest of opinion gathered in this manner will be helpful in arriving at a better understanding among students of these problems.

THE STUDY OF LEGAL EDUCATION

The War and the Legal Profession

Figures compiled for the last Annual Report[1] show that the first year of the Civil War bore the hardest upon Northern law schools, but even so reduced their aggregate attendance by little more than one-fourth. Only two small schools actually suspended operations. The others either began to recover their losses in the second or third year of the war, or in two instances (Columbia and Indiana Universities) exhibited no loss at any time. The aggregate attendance in the second year of the war was greater than in the first. In the third year it was greater than before the conflict started.

A much more difficult situation confronts the profession to-day. Figures furnished by ninety-eight schools show that they reopened in the autumn following our entrance into the present war with an aggregate student registration diminished by between 32 and 33 per cent. This, however, was only the beginning. Eighty-five schools have reported figures which agree with the preceding for that year, and show in addition a falling off at the opening of the present, or second, year of the war of no less than 69 per cent, as compared with the corresponding figures of 1916. Since information is difficult to secure from institutions that have quietly given up the ghost, these figures understate the extent to which the study of law has been abandoned. A cut of 40 per cent last year, increased this year to 75 per cent, would probably be a close approximation to the facts. Fourteen schools, including those of the state universities of Ohio, Oregon, Tennessee, Virginia, and West Virginia, are definitely known to

[1] *Twelfth Annual Report*, page 121.

have suspended operations. Others report that they are "giving no Junior or Senior courses," "giving very few of our regular courses," "school not officially closed but some courses will be dropped." Thirty-six schools that have not yet reported undoubtedly include some that have closed, some that are still wondering what policy they can for financial reasons or for patriotic reasons ought to adopt, as an emergency measure.

The unprecedented nature of the present crisis can be better appreciated if it be recalled that prior to the Civil War study in a law school was the exceptional instead of as to-day the prevailing method of preparation for practice. The total number of students in all the Northern law schools of the United States in 1860 was not so great as the attendance at a single day law school (Harvard) or at a single night law school (Georgetown) in 1916. We can guess from the figures quoted that the Civil War produced, outside of the South, little effect upon the nation's supply of educated lawyers. With much greater assurance we can foresee what some of the immediate consequences of the present struggle must be if, as is by no means unlikely, the country is obliged to continue for several years longer upon a military basis. It has frequently been asserted that in the past we have had more lawyers than we need; but no one has suggested that we had four times too many. The flocking to the colors, not merely of students, present and prospective, but of young men already admitted to the bar, can mean only one thing: a temporary diminution in the influence exerted by lawyers upon business and public life.

One of the puzzling problems that the war has brought to those of us who by reason of previous training or physical limitations have as yet found no clear way, other than those ways open to every citizen, of contributing to the success of our arms, is how far our pre-war activities ought to be interrupted during the present emergency. Assuming that these activities are not of a sort to run counter to, or to deflect needful energy, interest, and material products from, the major task of the nation, the question still remains whether, in justice to these activities themselves, the present is a peculiarly favorable, or a peculiarly unfavorable occasion to continue them. In particular those who, like the Division of Educational Enquiry, have undertaken the task of assembling facts, and indicating conclusions drawn from these facts, in the modest hope that they might thereby be of some assistance to others, may well be uncertain whether to publish the results of their labors at once, on the theory that there is an academic minority that have been pushed a little to one side by the men of action, and therefore have more than usual leisure to read, to ponder, and to perfect; or whether, on the other hand, it would be better to defer publication, on the theory that no general interest in such matters at such a time can possibly be expected. Rightly or wrongly, the policy that the Foundation has adopted has been to proceed much as tho war had not been declared: to publish, that is to say, the results of studies already begun as soon as completed; on the other hand, not to make the war an excuse for hasty or premature publication.

The present status of our studies of engineering and of teachers' training is described elsewhere. Our study of legal education, as most of the law teachers of America are aware, was conceived on a more comprehensive plan than these, and has been a most protracted affair. We have declined to be hurried, reasoning that a nation that has lacked expert assistance for a hundred and forty-two years, and that is acquitting itself as creditably in world history as ours is to-day, can probably proceed unaided a little while longer, until this study has been completely digested. The prevalent failing in America is that we rush into print before we have fully digested our material. It is perhaps well that there should be an occasional study that goes to the opposite extreme. As a matter of fact, the preparation of the manuscript is already so far advanced that the only chance of serious further delay that now appears is the possibility that Mr. Reed may be drafted. He is now bending every effort to have his work ready for the printer before this contingency shall arise. His study aims to be a comprehensive discussion of legal education prior to the outbreak of the war, beyond which date no systematic treatment will be attempted. Since this prewar period provides the institutional material out of which our coming educational system must necessarily be built, it is hoped that a clear description of the chaotic, but on the whole promising, condition of these institutions may prove an aid to intelligent reconstruction.

Meanwhile it is possible to announce a special bulletin in the same general series. Some months prior to the outbreak of the war an arrangement was entered into between the Carnegie Corporation and the Boston Legal Aid Society, whereby Mr. Reginald Heber Smith, chief counsel of the latter organization, was enabled to make a study of legal aid work throughout the United States. In this study the Foundation coöperated. Approaching his subject in a broad spirit, Mr. Smith found that the real significance of legal aid work could be appreciated only when seen in its proper perspective, against the background of the various causes that have contributed toward the hardship suffered by the poor in securing legal redress, and the various agencies that have been devised, of which organized legal aid activity is only one, with the object of relieving this unfortunate situation. His manuscript report, when completed, seemed so valuable a contribution that, after taking advice of several prominent members of the bar, it was decided to publish it, with a foreword by Senator Root, as a portion of our general study. This bulletin will accordingly constitute the second number of our legal studies, the first having been that of Professor Redlich upon the Case Method.

At first glance, it seems a far cry from legal education to a volume which, according to present intentions, is to be entitled *Justice and the Poor*. Education is not, however, a topic that can be advantageously isolated. It is at bottom merely a means to an end, inherently determined by the conditions among which it exists and for which it prepares. From the beginning we have foreseen that legal education could not be adequately treated unless it were broadly treated; that for the solving of its

technical pedagogical problems there is essential a realization of the social function of the lawyer, which in its turn involves, not of course a detailed mastery, but a general comprehension of our legal and political system. The manner in which our law affects the poor constitutes a part, and under our democratic form of government a very important part, of these general conditions that affect the position of the lawyer, and therefore the nature of the preparation that he needs. Waiving all humanitarian impulses aside, we need some assurance either that the poor have no just grievances against the law, or else that they have no grievances that are not in a fair way, by the encouragement of existing agencies, of being remedied. Otherwise we have no assurance that the basis of our edifice is sound, that law and order themselves may not be overturned, carrying all our elaborated superstructure down with them. Mr. Smith gives us this assurance, in the second of the two forms indicated, and gives it with a fulness, combined with a properly warning note, that renders further discussion of this question, for the purposes of our study, superfluous.

MEDICAL EDUCATION

The enlistment of physicians in the Medical Reserve Corps of the army gave rise to an important question which was early taken into consideration. The experience of Great Britain had indicated the danger that might threaten public health by the withdrawal from civilian practice of a large number of physicians to supply the needs of the army. In requesting the coöperation of the American Medical Association to secure physicians for the Medical Reserve Corps, Surgeon-General Gorgas emphasized the point that the interests of the civil communities also must be conserved.

In order to make available the information that would be necessary to determine the effect of a physician's enlistment on the efficient care for the population of his locality, the American Medical Association made a compilation of such data as the area, the population, total number of physicians, number of physicians under 45 and under 55 years of age, number of women physicians, total number of physicians in each county, and the number and names of physicians who were under commission in the army and navy. It was estimated that out of the total of 146,500 physicians in the country some 30,000, or one in five, would be needed by the Government.

The accompanying table, based on the data collected by the American Medical Association,[1] is presented here because it displays so clearly the fact that there need be no fear of a shortage of physicians in the United States, even under war conditions. The anxiety lest sound requirements in medical education will dangerously reduce the number of physicians is plainly without foundation.

The table indicates the number of citizens per physician in every county in the country. Before the war there were a dozen counties that had one physician for every

[1] *Journal of the American Medical Association*, June 1, 1918.

POPULATION PER PHYSICIAN IN ALL COUNTIES OF ALL STATES *BEFO*

State	Population per Physician Before	Population per Physician During	100-199 B	100-199 D	200-299 B	200-299 D	300-399 B	300-399 D	400-499 B	400-499 D	500-599 B	500-599 D	600-699 B	600-699 D	700-799 B	700-799 D	800-899 B	800-899 D	900-999 B	900-999 D
South Carolina	1,330	1,594											2	1	2	2	1	2	1	
North Carolina	1,087	1,282	1						1			1	1		3		3	4	3	3
Minnesota	884	1,318	1			1				1			5		3	3	4	5	9	3
Louisiana	920	1,069									2	1	3	1	4	4	7	3	10	10
Washington	932	1,120									1	1	3		3	4	6	3	2	4
Idaho	999	1,183							2		1	2	1	1	1	1	6	2	1	4
North Dakota	1,100	1,318									2		1	1	3	1	3	3	7	
Wisconsin	911	1,085	1								1		5		6	1	11	10	6	9
Florida	803	964					1		3	2	3	2	7	2	4	3	3	6	2	2
Virginia	806	966	2	2	1		3	1	2	3	7	2	5	7	8	6	7	7	5	4
Georgia	837	957									5	2	8	3	24	14	16	19	15	17
Alabama	913	1,051			1			1				1	3	2	6	2	12	7	4	5
South Dakota	924	1,078					2	1		1	2	1	6	2	12	4	3	10	3	5
Utah	932	1,106											1		2		4	4	5	4
Michigan	752	879			1				1	1	5	1	10	5	11	11	9	7	4	6
New Mexico	767	885					1	1	2	1	2	1	2	1	3	1	2	3	3	5
Arizona	797	1,034					1		1			2	1		2	1	1	1	2	2
West Virginia	807	918							1		4	2	5	5	6	4	10	4	4	8
Oklahoma	866	1,008					1		2	1	4	5	6	4	11	1	9	12	7	8
Mississippi	1,009	1,163	1								1	1			10	4	13	8	19	12
Maryland	621	755							1		1	2	3		3	4	4	4	5	3
Nevada	732	919							2	1	2	1		1	3	1	1		4	2
Colorado	600	674					4	2	5	4	6	5	7	6	7	4	4	9	16	8
Texas	730	836			3	2	3	2	11	7	28	16	29	26	33	26	32	30	23	21
Pennsylvania	761	922							1		1	1	4	1	19	4	11	13	8	13
Oregon	764	932	1						1	1	1		5	1	6	2	8	3	6	11
Connecticut	795	941											1		2	1	3	2	2	3
Delaware	924	1,057													1		1	1	1	1
New Jersey	1,024	1,233									1		2	1	1	1	7	1	3	3
California	563	650					2		1	2	9	4	14	11	5	8	9	7	6	4
Missouri	583	678	1			1	2	1	7	3	15	7	26	22	22	19	16	22	11	13
New York	587	701					1		1	1	7	2	19	8	12	17	8	12	9	8
Tennessee	646	737							3	1	13	8	15	12	20	17	9	18	12	10
Massachusetts	669	670	1			1	1			1	3	1		1	6	1	1	4	2	4
Ohio	673	772			1			1	1		11	6	24	15	20	21	14	19	7	9
Arkansas	686	744			1	1			5	3	4	4	22	18	13	13	14	13	8	10
Kentucky	696	802	1				1		8	3	16	13	22	14	21	17	10	15	7	16
Kansas	707	826							2		13	2	25	14	18	20	15	15	6	9
Montana	715	875					5	1	2	4	4	2	7	2	3	7	2	2	2	4
Nebraska	828	1,034	1	1			2	1	5	4	8	5	16	10	16	10	9	13	8	14
Illinois	574	668							7		26	13	31	30	16	22	8	17	8	7
Indiana	611	685					1		9	4	23	10	24	33	14	15	13	16	3	5
Iowa	618	697			1			1	11	1	14	14	25	19	23	30	11	11	9	13
Maine	673	782							1		2	1	7	1	3	7		3	2	1
New Hampshire	677	788									3		3	3	2	3	1	3	1	
Rhode Island	832	967	1										2			2	1			1
Vermont	576	665					1		1	1	5	3	6	3		5	1	2		
Wyoming	557	616			1		1	3	5	2	4	4	5	6	2	1				2
Dist. of Columbia	300	364					1	1												
Average	777	917	*Total* 12	3	10	6	34	17	105	53	260	149	419	293	415	345	343	375	281	306

D *DURING* THE WAR, SHOWING ACTUAL DISTRIBUTION AND MEDIANS

00–1199		1200–1299		1300–1399		1400–1499		1500–1599		1600–1699		1700–1799		1800–1899		1900–1999		2000–2999		3000–3999		4000–4999		5000 and over		*Total Counties*
	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D	B	D	
4		5	1	3	4	4	2	4	3	2	3	1	3	4	2		5	6	9	1	1	3	1		4	90
8	12	13	8	9	5	6	11	6	2	6	11	3	8	2	2	2	5	14	18	1	1		1	1	2	200
8	9	7	8	10	8	1	8	6	5	1	5	6	7	6	4	2	2	3	9	1	2		1			172
6	6	6	7	1	4	5	5	2	2	2	5	2	1	2		2	4	7	7						1	128
3	3	12	4	1	3	2	2	3	6	1	1		1		1		1		2							78
3	3	4	3	2	3	1	1	3	2			2	3		1	1	2	1	4					2	1	71
6	5	5	7	6	5	2	3	1	4	3	3		2		2	1	1	4	4	1	3	1	1	1	1	104
12	7	2	6	5	8	5	5	3	6	2	3	3	1		3		3	2	6	1					1	142
8	4	1	1	1	5	1	3	3	3	1			2	2	1		1	2	5							94
9	10	8	9	4	11	1	4	6	6	6	3	1	3	1	2		3	4	3	1	4	1			1	200
21	13	15	12	10	20	5	10	5	7	2	2	1	3	1	2	1	1	7	9	1	1		1			304
8	5	3	6	5	7	3	5	4	6	1	4	1	2	1				1	3	1			1			132
3	4	5	2	2	5	3	3	1	1	1	3	2	3	1	1		1	6	10					1	3	124
1	2	1	1	4	3	1	2				2		2	3	2	1		1	2	1	1					54
8	12	4	7	3	3	10	5		2	2	4	3	4		1		3	1	3							164
1	2	2	2	1	2	1		1	1		1		1			2	2			1			1			52
1	3	1			1						1							1	2							28
4	9	1	4	4	3	2	3	1	2	2	1	1					2		1						1	110
8	7	5	9	6	4	1	5	1	4		2	1					1	2	2							154
9	11	4	7	4	8	1	7	1	4	1				1	1			4	3	1	2					162
2	4	1	2	1	1		1		1																	48
			4								1			1	1					1	1					32
3	7	1	3	1	2													1	3			1	1	1		125
17	12	14	21	9	13	2	6	6	7	2	5	2	2			2	4	10	13		1	1	1			482
6	3	2	5	6	6	1	5		1		4	1	1													134
1	1	1	1	1	4	1	2		3		1	1			1			1	1							72
	2																									16
	1																									6
2	5		1	1	1		1			2	1		1		1											42
5	3	1	3	2	1		1		1		1							2	3		1					114
3	8		2	3	4	2	1	2	3		1															230
	3		2			1							1									1			1	122
5	5	3	4	2	2	4	3		3	4	3							3	3			1				192
	1																									28
2	4	1	2	2	2		2		1									1	1							176
3	2			2	1		1						1													149
4	5	4	2	5	7	2	2	3	5	4	3				2		1	2	3	1	1	1	1	1		240
3	8	2	5	2	6	3	4	1	1	2		2	1		1	1	2	2	4		1	1	1	1	1	208
3	4		2		1	1			1	2	1	1						5	4		1		1		1	82
1	3	3	3	4	4		4		2	3	1		2	1				3	5	1	2		1			182
1	7		2				1																			203
1	1		3	2	1						1															184
2	3	1	2												1											203
1			1																							32
	1																									20
			2																							10
																										28
1		1	1				1																			42
																										2
7	220	139	177	124	168	72	119	63	95	52	77	34	55	26	32	15	44	96	142	14	23	11	13	8	18	5,967

one to two hundred people. After the war had begun there were but a dozen and a half counties where one physician had to serve five thousand people.

The medians, half-way between these extremes, indicate that every state in the country, even under war conditions, was plentifully supplied with physicians. The central tendency before the war shows that there was one physician to about 850 of the population, while the withdrawal for war service raised this figure only to one physician for about 950 of the population. Compared with the entirely adequate ratio of one physician to every two thousand persons[1] which prevailed in Europe before the war, these figures furnish sufficient evidence that with our present supply of twice the European ratio of physicians, the danger of any shortage is exceedingly remote. No argument can be made from this direction against the maintenance and advancement of the best standards in the preparation of future physicians.

HENRY S. PRITCHETT.

October 15, 1918.

[1] Carnegie Foundation, *Bulletin Number Four*, pages 14–18; *Ninth Annual Report*, pages 74–92.

PART V

DE MORTUIS

DE MORTUIS

ELISHA BENJAMIN ANDREWS

ELISHA BENJAMIN ANDREWS was born at Hinsdale, New Hampshire, January 10, 1844. He received from Brown University the degree of bachelor of arts in 1870 and the degree of master of arts in 1873, and was graduated from the Newton Theological Institute in 1874. He was made a doctor of divinity by Colby College in 1884; doctor of laws by the University of Nebraska in 1884, Brown University in 1900, and the University of Chicago in 1901; and a doctor of philosophy by the University of Nebraska in 1912. Altho only seventeen at the outbreak of the Civil War, he enlisted, became a lieutenant, and was wounded at the battle of Petersburg in 1864. He spent one year as a Baptist minister at Beverly, Massachusetts, resigning to become president of Denison University, from 1875 to 1879. From 1879 to 1882 he was professor of homiletics in the Newton Theological Institute; from 1882 to 1888, professor of history and political economy in Brown University; from 1888 to 1889, professor of political economy and finance in Cornell University. He was president of Brown University from 1889 to 1898, a period of unprecedented growth. Dr. Andrews resigned the presidency of Brown to become superintendent of the Chicago schools, from 1898 to 1900, when he was appointed chancellor of the University of Nebraska. In 1908 he resigned and was made chancellor emeritus.

Dr. Andrews was the author of *Institutes of Constitutional History* (1884); *Institutes of General History* (1885, 1895); *Institutes of Economics* (1889, 1900); *Outlines of the Principles of History* (translated from Droyson) (1890); *An Honest Dollar* (1894); *Wealth and Moral Law* (1894); *History of the United States* (1894, 1902); *History of the Last Quarter Century in the United States* (1896); *Cosmology* (1900); *History of the United States in Our Own Times* (1904); and *The Call of the Land* (1913).

The Carnegie Foundation granted Dr. Andrews a retiring allowance on March 28, 1907. He died October 30, 1917, at Interlachen, Florida.

AMOS PEASLEE BROWN

AMOS PEASLEE BROWN was born at Germantown, Pennsylvania, December 3, 1864. He received from the University of Pennsylvania the degree of bachelor of science in 1886, that of mechanical engineer in 1887, and the degree of doctor of philosophy in 1892. He was an assistant in the geological survey of Pennsylvania from 1887 to 1889, and was at the University of Pennsylvania, as instructor in mining and metallurgy and as professor of geology and mineralogy, from 1892 to 1917, when he resigned because of ill health. He was a member of the American Institute of Mining Engineers, the Franklin Institute, the Academy of Natural Sciences, and the

Geological Society of America, and secretary of the American Philosophical Society.

Professor Brown was the author of *Crystallography of Hemoglobin* (with E. T. Reichart) (1909), and of various papers on geological, palaeontological, and mineralogical subjects, and was editor of *Erni's Mineralogy Simplified* (1901).

The Carnegie Foundation granted Professor Brown a retiring allowance on November 16, 1917. He died at Atlantic City, New Jersey, October 9, 1917.

SAMUEL JAY BUCK

Samuel Jay Buck was born at Russia, Herkimer County, New York, July 4, 1835. He was graduated from Oberlin with the bachelor's degree in 1858, and later from the Oberlin Theological Seminary, and received the degree of master of arts from Oberlin in 1862. The degree of doctor of divinity was conferred on him in 1903 by Tabor College. He was ordained to the Congregational ministry in 1861, and was pastor of the Congregational church at Orwell, Ohio, from 1861 to 1863. He was principal of Orwell Academy during the same years, principal of the preparatory department at Grinnell College from 1864 to 1869, and professor of mathematics and natural philosophy in Grinnell College from 1869 to 1893. From 1884 to 1887 he was acting president, and from 1893 to 1905, when he retired, he was professor of mathematics and astronomy. Thru the period of his active life he preached in various places near Grinnell. He was also county surveyor of Poweshiek County from 1890 to 1913, county superintendent of schools from 1866 to 1869, and president of the Iowa State Teachers' Association in 1871.

The Carnegie Foundation granted Professor Buck a retiring allowance on June 7, 1906. He died May 10, 1918.

WINFIELD SCOTT CHAPLIN

Winfield Scott Chaplin was born at Glenburn, Maine, August 22, 1847, and was graduated from the United States Military Academy in 1870. He received an honorary degree of master of arts from Union College in 1885, the degree of doctor of laws from Harvard in 1893, and the Imperial University of Japan made him a doctor of technology. From 1870 to 1872 he was second lieutenant in the Fifth United States Artillery; during the year 1872–73 he was a civil engineer on a railway; from 1873 to 1876 he was professor of mechanical engineering in Maine State College; from 1877 to 1882, professor of engineering in the Imperial University of Japan; from 1883 to 1886, professor of mathematics and adjunct professor of physics in Union College; from 1886 to 1891, professor of engineering and dean of the Lawrence Scientific School at Harvard, at the same time having charge of the disciplinary affairs of the entire university. From 1891 until his retirement in 1907 he

was chancellor of Washington University. It was during his administration that Washington University moved into the buildings formerly occupied by the St. Louis Exposition. Dr. Chaplin was a fellow of the American Academy of Arts and Sciences and a member of the Military Order of the Loyal Legion. While in Japan he was decorated with the Order of the Rising Sun.

The Carnegie Foundation granted Dr. Chaplin a retiring allowance on June 7, 1907. He died March 12, 1918, at Clayton, Missouri.

ALONZO COLLIN

ALONZO COLLIN was born in Hillsdale, New York, on August 14, 1837. He received from Wesleyan University (Connecticut) the degree of bachelor of arts in 1858, and the degree of master of arts in 1862. He became professor of physics in Cornell College, Mount Vernon, Iowa, in 1860, which position he held until 1881, when he accepted the chair of physics at the University of Nebraska. He returned to Cornell College in 1882, where he remained until his retirement in 1906, a service of forty-five years in the college. Professor Collin was a fellow of the American Association for the Advancement of Science.

The Carnegie Foundation granted Professor Collin a retiring allowance on June 7, 1906. He died at Mount Vernon, Iowa, April 17, 1918.

CHARLES LEE CRANDALL

CHARLES LEE CRANDALL was born at Bridgewater, New York, July 20, 1850. He was graduated from Cornell University in 1872 with the degree of bachelor of civil engineering, and received the degrees of civil engineer and master of civil engineering in 1876 and 1908 respectively. He was instructor in Cornell in 1874–75; assistant professor from 1875 to 1891; associate professor, 1891 to 1895; professor of railway engineering and geodesy, 1895 to 1908; and professor of railway engineering, 1908 to 1915. He was acting director of the College of Civil Engineering from 1903 to 1906. He was city engineer of Ithaca, New York, from 1870 to 1891.

Professor Crandall was the author of *Tables for Computation of Railway and Other Earthwork* (1886, 1893, 1902, 1907); *Notes on Descriptive Geometry* (1888, 1893); *Notes on Shades, Shadows and Perspective; The Transition Curve* (1893, 1899); *Text-book on Geodesy and Least Squares* (1907); and joint author with Professor F. A. Barnes of *Field Book for Railroad Surveying* (1909), and *Railroad Construction* (1913). He was a member of the Society for the Promotion of Engineering Education, the American Railway Engineering Society, and the American Society of Civil Engineers.

The Carnegie Foundation granted Professor Crandall a retiring allowance on May 14, 1915. He died August 25, 1917.

NATHAN FELLOWES DUPUIS

Nathan Fellowes Dupuis was born at Portland, Ontario, in 1836. He received from Queen's University the degree of bachelor of arts in 1866 and the degree of master of arts in 1868. During 1867–68 he was an assistant in the department of chemistry. In 1868 he was made professor of chemistry and biology, and three years later mineralogy and geology were placed under his care. He taught these subjects for the next ten years, when he was made professor of mathematics, which position he held for thirty-one years. In 1893 he was made dean of the School of Mining, now the Faculty of Applied Science, which position he held until his retirement from teaching. Professor Dupuis built several well-known astronomical clocks, a sidereal clock built by him being still in use in the university observatory.

Besides numerous articles for periodicals Professor Dupuis wrote a *Treatise on Geometrical Optics* (1868); *Geometry of the Point, Line and Circle* (1899); *Principles of Algebra* (1893); *Elements of Synthetic Solid Geometry* (1893); *Elements of Trigonometry for Practical Science Students* (1902); *Spherical Trigonometry and Astronomy*, (1906); *Descriptive and Mechanical Astronomy* (1910); and *Measurement of Time* (1915).

The Carnegie Foundation granted Professor Dupuis a retiring allowance on January 21, 1909. He died at Long Beach, California, July 20, 1917.

MORTON WILLIAM EASTON

Morton William Easton was born at Hartford, Connecticut, August 18, 1841. He received from Yale University the degree of bachelor of arts in 1863, and the degree of doctor of philosophy in 1872. He graduated from the College of Physicians and Surgeons (Columbia University) in 1867, and followed this by a year's post-graduate work in Vienna. On his return to this country he practised medicine for a few years in Hartford. After receiving the degree of doctor of philosophy he was appointed professor of ancient languages in East Tennessee University, now the University of Tennessee, and later became professor of modern languages and comparative philology. In 1880 he became instructor in French in the University of Pennsylvania; in 1887 adjunct professor of Greek, and in 1892 professor of English. He also held chairs of Sanskrit and comparative philology. He was the author of numerous articles on phonetics, Sanskrit, Iranian, and English subjects.

On June 27, 1912, the Carnegie Foundation voted Professor Easton a retiring allowance. He died at Mount Gretna, Pennsylvania, August 21, 1917.

GEORGE WILLIAM HARRIS

George William Harris was born at Pictou, Nova Scotia, December 18, 1849. He was graduated from Cornell University in 1873 with the degree of bachelor of philosophy, and was made assistant librarian that same year. In 1883 he became acting librarian and in 1890 librarian. Mr. Harris also gave lectures on the history of printing and general bibliography during one-half of each college year for nearly thirty years. He contributed articles on bibliographical and library subjects to library and literary publications, and was editor of the second *Ten Year Book* of Cornell University published in 1888 and editor of the *Library Bulletin* of Cornell University. Mr. Harris was a member of the American Library Association, and a life member of the Bibliographical Society of London and the Pomological Society of America.

The Carnegie Foundation granted Mr. Harris a retiring allowance on May 14, 1915. He died at Ithaca, New York, October 11, 1917.

WILLIAM ADDISON HOUGHTON

William Addison Houghton was born at Holliston, Massachusetts, March 10, 1852. Prepared for college at Phillips Academy, Andover, he received the degree of bachelor of arts from Yale in 1873, being class orator. In 1889 he received the degree of master of arts. The year 1882–83 he spent at the University of Berlin. From 1873 to 1875 he was principal of the preparatory department of Olivet College; in 1875–76 he was tutor in Latin at Yale; and from 1877 to 1882 he was professor of English literature at the Imperial University, Tokio, Japan. From 1883 to 1890 he was professor of English and history, and from 1890 to 1892 professor of Latin, in New York University. In 1892 he accepted an appointment as Winkley professor of the Latin language and literature in Bowdoin College. Professor Houghton was made a member of the managing committee of the American School of Classical Studies at Rome in 1894, and was a member also of the American Philological Association and the Society of Colonial Wars. He translated the *Odes* of Horace into English verse, and was the author of a number of miscellaneous poems and magazine articles and of lectures on literary, educational, and historical subjects.

The Carnegie Foundation granted Professor Houghton a retiring allowance on July 1, 1907. He died at Plainfield, New Jersey, October 22, 1917.

FREDERICK REMSEN HUTTON

Frederick Remsen Hutton was born in New York City on May 28, 1853. He was graduated from Columbia University in 1873, receiving his engineering degree three years later. From 1877 to 1907 he was professor of engineering at Columbia

University, and from 1899 to 1905 was dean of the faculty of engineering. In 1911 he served as consulting mechanical engineer in the Department of Water, Gas, and Electricity of the City of New York. From 1905 until 1911 he was Vice-President of the Museum of Safety.

In 1880 and 1882 Professor Hutton prepared census monographs for the Government, and in 1892 and 1893 was editor of *The Engineering Magazine* and *Johnson's Encyclopaedia.* He was the author of *Mechanical Engineering of Power and Plants*, *Heat and Heat Engines*, *The Gas Engine*, and *Mechanical Engineering and Steam Power Plants*, and was one of the collaborators in the *Century Dictionary*, published in 1910, and the *New International Encyclopaedia* of 1916.

The Carnegie Foundation granted Professor Hutton a retiring allowance on May 2, 1907. He died in New York City, May 14, 1918.

JOHN WILLIAMS LANGLEY

John Williams Langley was born at Boston, Massachusetts, October 21, 1841. He graduated from Harvard with the degree of bachelor of science in 1861. He was a student in the medical department of the University of Michigan in 1861–62, and received from the University of Michigan the honorary degree of doctor of medicine in 1877, and the degree of doctor of philosophy in 1892. He was acting surgeon in the United States Navy from 1862 to 1864; assistant professor of physics in the United States Naval Academy, 1868 to 1870; professor of chemistry in the Western University of Pennsylvania, 1872 to 1875; professor of chemistry and physics in the University of Michigan, 1875 to 1889; and professor of electrical engineering in the Case School of Applied Science, 1892 to 1907. Professor Langley was constantly employed as consulting chemist and metallurgist for steel firms, and as an expert in lawsuits involving chemical, metallurgical, or electrical knowledge. He was the author of various scientific papers. Professor Langley was a fellow of the American Association for the Advancement of Science and of the American Society of Mining Engineers; an honorary member of the Engineers Society of Western Pennsylvania, and a corresponding member of the New York Academy of Science and the British Association for the Advancement of Science.

The Carnegie Foundation granted Professor Langley a retiring allowance on October 8, 1907. He died at Ann Arbor, Michigan, May 10, 1918.

ROBERT HILLS LOUGHRIDGE

Robert Hills Loughridge was born at Koweta, a Presbyterian mission station west of Muscogee, Indian Territory, October 9, 1843. He prepared for college at the Tullahassee Mission Manual Labor School, established by his father, a missionary to the Creek Indians. He entered La Grange Synodical College in Tennessee in

1860. Two years later the college was broken up by the Civil War and Professor Loughridge enlisted in the Thirteenth Tennessee Infantry. He was severely wounded at the battle of Shiloh. At the close of the war he became a student in the University of Mississippi. Professor Loughridge was graduated from the University of Mississippi in 1871 and received the degree of doctor of philosophy in 1876. From 1872 to 1874 he was adjunct professor of chemistry in the University of Mississippi and assistant state geologist. From 1874 to 1878 he was assistant state geologist of Georgia. In 1878–79 he was principal of Sylvania Academy, Georgia. From 1879 to 1882 he aided Professor Eugene Hilgard in the preparation of his notable report on cotton production in the United States, which was produced as a publication of the Tenth Census. From 1882 to 1885 he was assistant state geologist of Kentucky, and for the next five years professor of agricultural chemistry in the University of South Carolina. In 1890–91 he was again assistant state geologist of Kentucky, and in 1891 he accepted a call to the faculty of the College of Agriculture of the University of California. From 1891 to 1909 he taught agricultural chemistry, and participated with Dean Hilgard in his researches into the chemistry, physics, and geology of the soils of California.

Professor Loughridge was a fellow of the American Association for the Advancement of Science, a fellow of the Geological Society of America, and a member of the Society for the Promotion of Agricultural Science, the American Geographical Society, the American Forestry Association, and the Seismological Society of America.

The Carnegie Foundation granted Professor Loughridge a retiring allowance on September 30, 1909. He died at Waco, Texas, July 1, 1917.

PETER HATHAWAY KEMPER McCOMB

Peter Hathaway Kemper McComb was born at London, Ohio, November 29, 1842. He received from Hanover College the degree of bachelor of arts in 1864, and the degree of master of arts in 1870. He was graduated from Princeton Theological Seminary in 1868, being subsequently granted its honorary degree of doctor of divinity. Professor McComb was a volunteer in the Civil War under the last call of Lincoln. From 1868 to 1894 he was pastor of four Presbyterian churches. He went to Hanover College in 1894 as professor of history and political science, serving continuously until his retirement in 1909.

The Carnegie Foundation granted Professor McComb a retiring allowance on November 15, 1909. He died at Kansas City, Missouri, December 19, 1917.

HENRY ALBERT MORRILL

Henry Albert Morrill was born in Potsdam, New York, on February 14, 1835. He received his bachelor's degree at Dartmouth College in 1860, and a master's degree from the same institution in 1863. He was admitted to the Bar in 1863,

and was appointed city solicitor of the city of Cincinnati in 1865, which position he held until 1869. He became professor of law in the University of Cincinnati in 1869, where he remained until his retirement in 1908.

On February 6, 1908, the Carnegie Foundation granted Professor Morrill a retiring allowance. He died at Cincinnati, Ohio, May 13, 1918.

WILLIAM PORTER

William Porter was born at Lee, Massachusetts, in 1820. He was graduated from Williams College in 1839, after which he spent a year in the study of law in his father's office, and then studied theology, first at Andover Theological Seminary and subsequently at the Union Theological Seminary, New York City, from which he was graduated in 1844. Williams College gave him the degree of doctor of divinity in 1882. From 1850 to 1852 he was a member of the faculty of Marietta College. In 1852 he accepted an appointment at Beloit College as Brinsmade professor of mathematics. This position he held until his retirement from active service in 1906, at the age of eighty-six.

The Carnegie Foundation granted Professor Porter a retiring allowance on June 7, 1906. He died at Beloit, Wisconsin, October 28, 1917.

GARVIN DUGAS SHANDS

Garvin Dugas Shands was born December 5, 1844, near Spartanburg, South Carolina. He was graduated from Wofford College in 1866 with the degree of bachelor of arts, and from the law department of the University of Kentucky in 1870 with the degree of bachelor of laws. Wofford College awarded him the degree of doctor of laws in 1897. At the age of seventeen he volunteered as a private in the Second South Carolina Cavalry and fought thru the entire Civil War. After his graduation in law he practised in Senatobia, Mississippi. In 1876 he was elected a representative to the legislature, and from 1880 to 1888 he was lieutenant-governor of the state. In 1894 he was called to the University of Mississippi to become dean of the law department and professor of law. In 1906 he accepted a call to Tulane University as professor of the common law.

The Carnegie Foundation granted Professor Shands a retiring allowance on September 30, 1909. He died in New Orleans, Louisiana, July 1, 1917.

RICHARD HENRY SHARP

Richard Henry Sharp was born at Lawrenceville, Brunswick County, Virginia, March 30, 1844. He graduated from the University of Virginia with the degree of master of arts in 1879, his course there being interrupted by the Civil War, in which he served. He was professor of Latin and mathematics in the Wesleyan Female

College, Murfreesboro, North Carolina, from 1873 to 1877; professor of Latin and Greek in Emory and Henry College from 1878 to 1881; professor of Latin and German in Danville College from 1883 to 1893; and professor of Latin and Greek in Randolph-Macon Woman's College from 1893 to 1909.

The Carnegie Foundation granted Professor Sharp a retiring allowance on January 21, 1909. He died at Lynchburg, Virginia, August 14, 1917.

SCOTT SHIPP

Scott Shipp was born at Warrenton, Virginia, August 2, 1839. He was graduated from the Virginia Military Institute in 1859. Washington and Lee University granted him the degrees of doctor of letters in 1883 and of doctor of laws in 1890. After his graduation from the Institute he was made assistant professor of mathematics, and later of Latin. At the beginning of the Civil War he was commandant of cadets, and was successively made captain, major, and lieutenant-colonel in the Confederate Army, and led the battalion of the Institute in a charge at Newmarket in 1862. A wound received there obliged him to retire from the army. He served as commandant of cadets at the Institute from that time until 1890, when he was made superintendent, to succeed General Smith, who had held the office since 1839. In 1890 he was made a member of the Board of Visitors of the United States Military Academy, and in 1894 of the United States Naval Academy.

The Carnegie Foundation granted General Shipp a retiring allowance on September 28, 1906. He died at Lexington, Virginia, December 4, 1917.

THOMAS ALEXANDER SMITH

Thomas Alexander Smith was born in Morgan County, Ohio, October 13, 1847. He was graduated from Muskingum College in 1874. From there he went to Yale, where he received the degree of doctor of philosophy in 1877. Muskingum College conferred on him the degree of doctor of laws in 1913. From 1870 to 1872 he was instructor in Muskingum College; from 1872 to 1874, professor of mathematics. From 1877 to 1879 he was instructor in mathematics, and from 1879 until his retirement in 1913 professor of mathematics and physics in Beloit College.

The Carnegie Foundation granted Professor Smith a retiring allowance on April 29, 1913. He died in Beloit, Wisconsin, April 15, 1918.

EDWARD HENRY SPIEKER

Edward Henry Spieker was born in Baltimore, April 18, 1859. He received the degree of bachelor of arts in 1879 and the degree of doctor of philosophy in 1882 from Johns Hopkins University. He was at once appointed instructor in Greek and Latin at Johns Hopkins, and passed thru the various grades of associate, asso-

ciate professor, and collegiate professor, which last rank was accorded him in 1915. He was in the service of the university for thirty-six years. He was a member of the American Philological Association, the American Oriental Society, the American Archaeological Institute, and other learned bodies. He was the author of several books on Greek philology and textbooks.

The Carnegie Foundation granted Professor Spieker on March 8, 1918, a retiring allowance which he did not live to enjoy. He died in Baltimore, February 20, 1918.

LEVERETT WILSON SPRING

Leverett Wilson Spring was born at Grafton, Vermont, January 15, 1840. He was graduated from Williams College, entered Hartford Theological Seminary in 1866, and was a graduate student in the Andover Seminary, 1866–67. The University of Kansas conferred on him the degree of doctor of divinity in 1886. From 1868 to 1881 he was engaged in the ministry, but in 1881 accepted the professorship of English literature in the University of Kansas, where he remained until 1886, when he was appointed Morris professor of rhetoric in Williams College. This position he held until his resignation in 1909.

Professor Spring was the author of *History of Kansas* and *Mark Hopkins, Teacher.* He was also a frequent contributor to the magazines. He was the editor of *The Centennial Anniversary of Williams College, 1893; The Addresses of President Hopkins and the Rev. Thomas Robbins at the Semi-Centennial of Williams College in 1893*, and of various other publications issued by the college. He was a member of the American Historical Association and the Massachusetts Historical Society.

The Carnegie Foundation granted Professor Spring a retiring allowance on April 8, 1909. He died in Boston, Massachusetts, December 23, 1917.

JONATHAN YOUNG STANTON

Jonathan Young Stanton was born June 16, 1834, and was graduated from Bowdoin College in 1856 with the degree of bachelor of arts, and in 1859 with the degree of master of arts. In 1894 Bowdoin conferred on him the degree of doctor of letters. In 1864 he went to Bates College as professor of Latin and Greek, which chair he held until his retirement in June, 1906, a period of forty-two years.

The Carnegie Foundation granted Professor Stanton a retiring allowance on June 21, 1906. He died at Lewiston, Maine, February 17, 1918.

BRADLEY MARTIN THOMPSON

Bradley Martin Thompson was born at Milford, Michigan, on April 16, 1835. His preparatory education was obtained at Albion College. Entering the University of Michigan in 1854, he was graduated in 1858 as bachelor of arts, and in 1860 as bachelor of laws. He immediately began the practice of the law in East Saginaw, Michigan, but in 1862, having enlisted as a volunteer, he became captain of the Seventh Michigan Volunteer Cavalry, and continued to serve until he was mustered out in 1866. He was breveted lieutenant-colonel in 1865 for gallant and meritorious services. In 1887, after a successful professional career at East Saginaw, he was called to the University of Michigan as lecturer on real property, and in 1888 was appointed Jay professor of law, which position he held until his retirement in 1911.

The Carnegie Foundation granted Professor Thompson a retiring allowance on April 20, 1911. He died at Ann Arbor, Michigan, September 29, 1917.

CHARLES MELLEN TYLER

Charles Mellen Tyler was born at Limington, Maine, January 8, 1832. He was educated at Phillips Academy, Andover, and at Yale University, from which he graduated in 1855 with the degree of bachelor of arts. He received from Yale the degree of master of arts in 1890, and the degree of doctor of divinity in 1892. After a year at Union Theological Seminary he held various Congregational pastorates until, in 1891, he was appointed first Sage professor of the history and philosophy of religion and Christian ethics at Cornell University. From 1903 to 1906 he was lecturer in the same field. From 1886 to 1892, and from 1907 until his death, by virtue of his office as librarian of the Cornell City Library, he was a member of the Board of Trustees. For one term, 1862–63, he was a member of the Massachusetts House of Representatives. From December, 1863, until June, 1864, he served as chaplain of a Massachusetts regiment of volunteers, with the rank of captain, being in the battles of Spottsylvania Court House, the Wilderness, and about Petersburg. He was a member of the Loyal Legion, the Grand Army of the Republic, the American Oriental Society, and the Society for Psychical Research. Professor Tyler was the author of *A Life of Lieutenant George Walcott, U. S. N.*, and *Bases of Religious Belief, Historic and Ideal* (1892).

The Carnegie Foundation granted Professor Tyler a retiring allowance on June 7, 1906. He died at Scranton, Pennsylvania, May 15, 1918.

HENRY PARKS WRIGHT

Henry Parks Wright was born at Manchester, New Hampshire, November 30, 1839. He left Phillips Academy, Andover, to enlist in the Fifty-first Massachusetts Infantry in the Civil War, and served until his regiment was mustered out. He

then entered Yale, and was graduated with the class of 1868, as valedictorian, with a scholarship record not equaled before, and not paralleled until twenty-five years later. He received the further degrees of master of arts and doctor of philosophy from Yale in 1871 and 1876. The year 1878–79 was spent at the Universities of Göttingen and Berlin. In 1895 Union College conferred upon him the degree of doctor of laws.

From September, 1868, to January, 1870, Dean Wright was instructor in Latin in Chickering Institute, Cincinnati, Ohio. In January, 1870, he accepted the position of tutor in Greek and Latin at Yale; from 1871 to 1876 he was assistant professor of Latin; from 1876 to 1884 professor of Latin; and from 1884 to his retirement in 1909, professor of Latin and first dean of Yale College.

Dean Wright's scholarship is recorded in his edition of the *Satires of Juvenal* (1901). His most notable service, however, was the development, thru the organization of his office and his personal influence, of a change from the traditional opposition between teacher and students to a new spirit of coöperative self-government. The consequent esteem and affection of many thousand alumni were embodied in their erection and dedication of Wright Hall in 1912.

The Carnegie Foundation granted Dean Wright a retiring allowance on April 8, 1909. He died at New Haven, Connecticut, March 17, 1918.

REPORT OF THE TREASURER

REPORT OF THE TREASURER

To the Chairman and Trustees of the Carnegie Foundation for the Advancement of Teaching:

In accordance with the provisions of Article IX of the By-laws, the chairman of the board of trustees designated Messrs. Leslie, Banks & Co., chartered public accountants, to audit the accounts of the Foundation for the fiscal year ending June 30, 1918. The books of the treasurer were accordingly turned over to this firm, whose report follows.

September 17, 1918.

The Board of Trustees, Carnegie Foundation for the Advancement of Teaching, New York.

Dear Sirs: Having audited the Accounts of the Treasurer for the fiscal year ended June 30, 1918, we append hereto the following statements:

Summarized Combination Balance Sheet at June 30, 1918
Detailed Balance Sheet of General Fund (Schedule A)
Detailed Balance Sheet of Division of Educational Enquiry (Schedule B)
Detailed Balance Sheet of Reserve Fund No. 1 (Schedule C)
Detailed Balance Sheet of Reserve Fund No. 2 (Schedule D)
Detailed Balance Sheet of Emergency Reserve Fund (Schedule E)
Revenue Account for General Fund and Division of Educational Enquiry (Schedule F)
All Investments and Income thereon (Schedule G)

The income from investments and from the Carnegie Corporation has been fully accounted for and all expenditures duly authorized and vouched.

The securities representing the investments were examined by us and found to be correct and the cash balances were duly verified.

We hereby certify that the respective Balance Sheets appended hereto exhibit a true and accurate statement of the finances of the Foundation at June 30, 1918.

We are

Yours faithfully,

Leslie, Banks & Co.
Chartered Accountants.

SUMMARIZED COMBINATION BALANCE SHEET

AT JUNE 30, 1918

	General Fund (per Sch. A)	*Division of Educational Enquiry (per Sch. B)*	*Reserve Fund No. 1 (per Sch. C)*	*Reserve Fund No. 2 (per Sch. D)*	*Emergency Reserve Fund (per Sch. E)*	*Total*
Funds and Surplus:						
Funds	$13,150,000.00	$1,250,000.00	$3,475,536.77	$101,234.37	$101,856.52	$18,078,627.66
Surplus (accrued interest, cash, etc.)	206,445.22	24,205.74				230,650.96
Total Funds and Surplus	$13,356,445.22	$1,274,205.74	$3,475,536.77	$101,234.37	$101,856.52	$18,309,278.62
Assets:						
Investments	$13,156,860.44	$1,250,000.00	$3,366,007.68	$64,768.60	$97,186.03	$17,934,822.75
Cash	12,284.81	10,767.22	67,908.25	35,782.46	3,482.99	130,225.73
Accrued Interest Receivable	186,322.51	11,666.66	41,620.84	683.31	1,187.50	241,480.82
Office Furniture	977.46	1,771.86				2,749.32
Total	$13,356,445.22	$1,274,205.74	$3,475,536.77	$101,234.37	$101,856.52	$18,309,278.62

Schedule A

GENERAL FUND

BALANCE SHEET AT JUNE 30, 1918

Endowed Fund and Surplus

ENDOWED FUND:			
Original Fund		$13,000,000.00	
Accumulations		150,000.00	$13,150,000.00
SURPLUS INCOME:			
At June 30, 1917		$1,335,775.22	
Surplus Income for year 1917–18 (per Schedule F)		318,850.42	
Bond Discount for year 1917–18		625.29	
		$1,655,250.93	
DEDUCT:			
Transferred to Other Funds			
Reserve Fund No. 1 (Sch. C)	$1,248,805.71		
Reserve Fund No. 2 (Sch. D)	100,000.00		
Emergency Reserve Fund (Sch. E)	100,000.00	1,448,805.71	
SURPLUS INCOME AT JUNE 30, 1918			206,445.22
TOTAL ENDOWMENT FUND AND SURPLUS			$13,356,445.22

Assets

INVESTMENTS (per Schedule G I)		$13,156,860.44	
CASH		12,284.81	
ACCRUED INTEREST RECEIVABLE (per Sch. G I)		186,322.51	
OFFICE FURNITURE:			
At June 30, 1917	$7,178.71		
Additions	784.95		
	$7,963.66		
Less Reserve for Depreciation	6,986.20	977.46	
TOTAL ASSETS			$13,356,445.22

Schedule B

DIVISION OF EDUCATIONAL ENQUIRY

BALANCE SHEET AT JUNE 30, 1918

Endowed Fund and Surplus

ENDOWED FUND			$1,250,000.00
SURPLUS INCOME:			
At June 30, 1917		$25,258.10	
DEDUCT			
Decrease of Surplus for year 1917–18 (per Schedule F)		1,052.36	
SURPLUS INCOME AT JUNE 30, 1918			24,205.74
TOTAL ENDOWMENT FUND AND SURPLUS			$1,274,205.74

Assets

INVESTMENTS (per Schedule G II)		$1,250,000.00	
CASH		10,767.22	
ACCRUED INTEREST RECEIVABLE (per Sch. G II)		11,666.66	
OFFICE FURNITURE:			
At June 30, 1917	$2,128.06		
Additions	486.47		
	$2,614.53		
Less Reserve for Depreciation	842.67	1,771.86	
TOTAL ASSETS			$1,274,205.74

Schedule C

RESERVE FUND NO. 1

BALANCE SHEET AT JUNE 30, 1918

Fund

From Carnegie Corporation of New York		$2,148,175.00
Transferred from General Fund:		
Investments	$935,472.40	
Cash	313,333.31	
Total Amount transferred from General Fund		1,248,805.71
Income:		
From Investments (per Schedule G III)	$73,293.07	
Interest on Bank Deposit	311.09	
Bond Discount for year 1917–18	4,951.90	
Total Income		78,556.06
Total Fund at June 30, 1918		$3,475,536.77

Assets

Investments (per Schedule G III)	$3,366,007.68	
Cash	67,908.25	
Accrued Interest Receivable (per Schedule G III)	41,620.84	
Total Assets		$3,475,536.77

Schedule D

RESERVE FUND NO. 2

BALANCE SHEET AT JUNE 30, 1918

Fund

Transferred from General Fund		$100,000.00
Income:		
From Investments (per Schedule G IV)	$972.87	
Interest on Bank Deposit	242.90	
Bond Discount for year 1917–18	18.60	
Total Income		1,234.37
Total Fund		$101,234.37

Assets

Investments (per Schedule G IV)	$64,768.60	
Cash	35,782.46	
Accrued Interest Receivable (per Schedule G IV)	683.31	
Total Assets		$101,234.37

Schedule E

EMERGENCY RESERVE FUND

BALANCE SHEET AT JUNE 30, 1918

Fund

TRANSFERRED FROM GENERAL FUND		$100,000.00
INCOME:		
From Investments (per Schedule G V)	$1,283.34	
Interest on Bank Deposit	525.38	
Bond Discount for year 1917–18	47.80	
TOTAL INCOME		1,856.52
TOTAL FUND		$101,856.52

Assets

INVESTMENTS (per Schedule G V)	$97,186.03	
CASH	3,482.99	
ACCRUED INTEREST RECEIVABLE (per Schedule G V)	1,187.50	
TOTAL ASSETS		$101,856.52

Schedule F

REVENUE ACCOUNTS

YEAR ENDED JUNE 30, 1918

Income

		General Fund	Division of Educational Enquiry
From Investments (per Schedules G I and G II)		$670,481.66	$50,000.00
From Carnegie Corporation of New York		500,000.00	
From Interest on Bank Deposits		3,272.50	197.37
TOTAL INCOME		$1,173,754.16	$50,197.37

Expenditure

		General Fund	Division of Educational Enquiry
RETIRING ALLOWANCES:			
To Professors, Officers, and Widows in Institutions on the Associated List	$680,855.71		
To Professors, Officers, and Widows in Institutions not on the Associated List	118,667.30	$799,523.01	
Salaries		29,439.04	$2,894.82
War Bonuses		846.88	
Publication		7,082.59	4,706.87
Study of Legal Education			5,664.96
Study of Training of Teachers (Missouri)			26,999.26
Study of Engineering Education			5,761.22
Office Rent		5,520.00	2,880.00
Traveling Expenses of Trustees, etc.		4,112.05	385.52
Professional Fees		3,548.83	375.00
Office Supplies		1,378.14	579.90
Rent of Safe Deposit Boxes for all Funds		900.00	50.00
Postage		469.65	397.16
Telegrams, Telephone, and Messenger Service		214.18	215.73
Miscellaneous		1,151.50	126.49
TOTAL EXPENDITURE		$854,185.87	$51,036.93
Depreciation of Office Furniture		717.87	212.80
		$854,903.74	$51,249.73
SURPLUS INCOME FOR YEAR		$318,850.42	
DECREASE OF SURPLUS FOR YEAR			$1,052.36

Schedule G

INVESTMENTS AND INCOME THEREON

I. GENERAL ENDOWMENT

Securities	*Par Value*	*Book Value*	*Interest Dates*	*Accrued Interest June 30, 1917*	*Interest Collected*	*Accrued Interest June 30, 1918*	*Income for Year*
Atchison, Topeka & Santa Fe Ry. Co. Transcontinental Short Line First Mtge. 4% Bonds. Due July 1, 1958	$24,000.00	$22,405.25	Jan. & July	$1,000.00	$2,000.00	$480.00	$1,480.00
Atchison, Topeka & Santa Fe Ry. Co. 4% General Mtge. Bonds. Due October 1, 1995	25,000.00	24,637.32	Apr. & Oct.	500.00	1,500.00	250.00	1,250.00
Carolina, Clinchfield & Ohio Railway Co. First Mtge. 5% Bonds. Due June, 1938	200,000.00	192,384.62	June & Dec.	833.34	10,000.00	833.34	10,000.00
Chicago, Milwaukee & St. Paul Railway Co. 25 year 4% Bonds. Due January, 1934	25,000.00	23,832.63	Jan. & July	2,000.00	4,000.00	500.00	2,500.00
Chicago, Milwaukee & St. Paul Ry. Co. General and Refunding 4½% Bonds. Due January, 2014	250,000.00	241,001.94	Apr. & Oct.	2,812.50	11,250.00	2,812.50	11,250.00
Duluth, Missabe & Northern Ry. Co. General Mtge. 25 year 5% Bonds. Due January, 1941	114,000.00	119,267.81	Jan. & July	2,850.00	5,700.00	2,850.00	5,700.00
H. C. Frick Coke Co. 5% Pittsburgh, Monongahela First Lien Purchase Money Bonds. Due January 1, 1925, & June 1, 1944	300,000.00	308,511.63	Jan. & July	7,500.00	15,000.00	7,500.00	15,000.00
Illinois Central R. R. Co. (Louisville Division & Terminal) First Mortgage 3½% Gold Bonds. Due July 1, 1953	200,000.00	173,514.81	Jan. & July	3,500.00	7,000.00	3,500.00	7,000.00
Oregon Railroad & Navigation Co. 4% Consolidated Mtge. Bonds. Due June, 1946	15,000.00	14,665.24	June & Dec.	166.67	1,300.00	50.00	1,183.33
Oregon Short Line R. R. Co. 4% Refunding Bonds. Due December, 1929	5,000.00	4,746.00	June & Dec.	333.33	2,100.00	16.67	1,783.34
Southern Pacific R. R. Co. First Refunding 4% Bonds. Due January, 1955	20,000.00	18,474.79	Jan. & July	1,400.00	2,800.00	400.00	1,800.00
Union Pacific R.R. Co. First Lien and Refunding Mtge. 4% Bonds. Due March, 2008	14,000.00	13,418.40	Mar. & Sept.	666.67	1,280.00	46.67	660.00
U.S. Steel Corporation, Series "A" Registered 50 year 5% Bonds. Due April, 1951	2,000,000.00	2,000,000.00	Jan. & July	50,000.00	100,000.00	50,000.00	100,000.00
U.S. Steel Corporation, Series "B" Registered 50 year 5% Bonds. Due April, 1951	2,850,000.00	2,850,000.00	Feb. & Aug.	59,375.00	142,500.00	59,375.00	142,500.00
U.S. Steel Corporation, Series "D" Registered 50 year 5% Bonds. Due April, 1951	2,850,000.00	2,850,000.00	Apr. & Oct.	35,625.00	142,500.00	35,625.00	142,500.00
U.S. Steel Corporation, Series "E" Registered 50 year 5% Bonds. Due April, 1951	1,000,000.00	1,000,000.00	May & Nov.	8,333.33	50,000.00	8,333.33	50,000.00
U.S. Steel Corporation, Series "F" Registered 50 year 5% Bonds. Due April, 1951	3,300,000.00	3,300,000.00	June & Dec.	13,750.00	165,000.00	13,750.00	165,000.00
Investments at June 30, 1918	$13,192,000.00	$13,156,860.44					
Investments transferred to Reserve Fund No. 1	$972,000.00	$935,472.40		10,550.01	21,425.00		10,874.99
				$201,195.85	$685,355.00	$186,322.51	$670,481.66

II. DIVISION OF EDUCATIONAL ENQUIRY

Chicago & Northwestern Ry. Co. General Mtge. 4% Bonds. Due November 1, 1987	$1,000,000.00	$1,000,000.00	May & Nov.	$6,666.66	$40,000.00	$6,666.66	$40,000.00
Westchester County, New York, Registered Bronx Valley Sanitary Sewer District 4% Bonds. Due January 1, 1933, to January 1, 1974 (inc.)	250,000.00	250,000.00	Jan. & July	5,000.00	10,000.00	5,000.00	10,000.00
	$1,250,000.00	$1,250,000.00		$11,666.66	$50,000.00	$11,666.66	$50,000.00

III. RESERVE FUND NO. 1

Atchison, Topeka & Santa Fe Ry. Co. Transcontinental Short Line First Mtge. 4% Bonds. Due July 1, 1958	$26,000.00[1]	$24,272.37	Jan. & July			$520.00	$520.00
Atchison, Topeka & Santa Fe Ry. Co. General Mtge. 4% Bonds. Due October 1, 1995	25,000.00[1] 150,000.00	24,637.30 120,844.35	Apr. & Oct. Apr. & Oct.	$1,500.00	$3,500.00	1,750.00	3,750.00
Baltimore & Ohio R. R. Co. Prior Lien 3½% Bonds. Due July, 1925	250,000.00	217,327.59	Jan. & July			4,375.00	4,375.00
Baltimore & Ohio R. R. Co. (Southwestern Division) First Mtge. 3½% Bonds. Due July, 1925	50,000.00[1]	48,338.07	Jan. & July			875.00	875.00
Baltimore & Ohio R. R. Co. (Pittsburgh, Lake Erie & West Va. System) Refunding 4% Bonds. Due November, 1941	55,000.00[1]	51,289.71	May & Nov.		1,100.00	366.67	1,466.67
Canada, Dominion of, 5% Bonds. Due 1931	100,000.00	94,868.65	Apr. & Oct.	1,027.78		1,250.00	222.22
Central R. R. Co. of N. J. General Mtge. 5% Bonds. Due July, 1987	20,000.00[1]	23,886.08	Jan. & July			500.00	500.00
Chesapeake & Ohio R. R. Co. General Funding & Improvement Mtge. 5% Bonds. Due January, 1929	50,000.00[1]	50,462.84	Jan. & July			1,250.00	1,250.00
Chicago, Burlington & Quincy (Illinois Division) First Mtge. 4% Bonds. Due July, 1949	50,000.00[1]	50,406.42	Jan. & July			1,000.00	1,000.00
Chicago, Burlington & Quincy (Northern Pacific—Great Northern) 4% Collateral Joint Bonds. Due July, 1921	100,000.00[1]	98,684.70	Jan. & July			2,000.00	2,000.00
Chicago, Indiana & Southern R. R. Co. Consolidated Mtge. 4% Bonds. Due January, 1956	55,000.00[1]	50,981.50	Jan. & July			1,100.00	1,100.00
Chicago, Milwaukee & St. Paul Ry. Co. 25 year 4% Bonds. Due July, 1934	75,000.00[1]	71,497.89	Jan. & July			1,500.00	1,500.00
Chicago, Milwaukee & St. Paul Ry. Co. General & Refunding 4% Bonds. Due January, 2014	500,000.00	338,547.65	Apr. & Oct.	5,625.00	11,250.00	5,000.00	10,625.00
City of New York Registered 3½% Corporate Stock for replenishing the Fund for Street and Park Openings No. 627. Due November, 1954	50,000.00[1]	46,003.86	May & Nov.		875.00	291.67	1,166.67
Delaware & Hudson Company First and Refunding 4% Bonds. Due November, 1943	100,000.00	85,641.69	May & Nov.	666.67	2,000.00	666.67	2,000.00
Illinois Central R. R. Co. 5% Equipment Notes. Due 1924	70,000.00	66,359.96	May & Nov.	262.50		583.33	320.83
Lake Shore & Michigan Southern R. R. Co. 25 year 4% Bonds. Due September, 1928	50,000.00[1]	49,596.78	Mar. & Sept.		1,000.00	666.67	1,666.67
Carried forward	$1,776,000.00	$1,513,647.41		$9,081.95	$19,725.00	$23,695.01	$34,338.06

[1] Transferred from General Fund.

Securities	Par Value	Book Value	Interest Dates	Accrued Interest June 30, 1917	Interest Collected	Accrued Interest June 30, 1918	Income for Year
Brought forward	$1,776,000.00	$1,513,647.41		$9,081.95	$19,725.00	$23,695.01	$34,338.06
Lake Shore & Michigan Southern R. R. Co. 4% Bonds. Due November, 1931	30,000.00	24,683.08	May & Nov.	553.33	600.00	200.00	246.67
Liberty Loan (First) 3½% U. S. Bonds. Due December, 1947	500,000.00	494,843.75	June 15 & Dec. 15	729.17	8,750.00	729.17	8,750.00
Liberty Loan (Second) 4% U. S. Bonds. Due November, 1942	500,000.00	485,152.28	May 15 & Nov. 15	2,500.00	10,000.00	2,500.00	10,000.00
Louisville & Nashville R. R. Co. Unified 4% Bonds. Due July, 1940	150,000.00	125,528.09	Jan. & July			3,000.00	3,000.00
Ontario, Province of, 4% Bonds. Due September, 1926	75,000.00	64,336.48	Mar. & Sept.	83.33		1,000.00	916.67
Oregon R. R. & Navigation Co. 4% Consolidated Mtge. Bonds. Due June, 1946	35,000.00[1]	34,218.88	June & Dec.		700.00	116.67	816.67
Oregon Short Line R. R. Co. 4% Refunding Gold Bonds. Due December, 1929	95,000.00[1]	90,174.06	June & Dec.		1,900.00	316.66	2,216.66
Pennsylvania Company 4% 15–25 year Loan of 1906 (Guaranteed by Pennsylvania R. R. Co.). Due April, 1931	50,000.00[1]	49,550.43	Apr. & Oct.		1,000.00	500.00	1,500.00
Southern Railway Co. Consolidated 5% Bonds. Due July, 1994	30,000.00	27,718.75	Jan. & July	441.66		750.00	308.34
Southern Pacific R. R. Co. First Refunding Mtge. 4% Bonds. Due January, 1955	50,000.00[1]	46,186.96	Jan. & July			1,000.00	1,000.00
Union Pacific R. R. Co. 20 year 4% Convertible Bonds. Due July, 1927	100,000.00[1]	93,365.74	Jan. & July			2,000.00	2,000.00
Union Pacific R. R. Co. First Lien & Refunding Mtge. 4% Bonds. Due March, 2008	36,000.00[1] 250,000.00	34,504.46 196,349.44	Mar. & Sept. Mar. & Sept.	3,333.33	5,720.00	3,813.33	6,200.00
Union Pacific R. R. Co. Land Grant 4% Bonds. Due July, 1947	100,000.00	85,747.87	Jan. & July			2,000.00	2,000.00
	$3,777,000.00	$3,366,007.68		$16,722.77	$48,395.00	$41,620.84	$73,293.07

IV. RESERVE FUND NO. 2

Liberty Loan (Third) 4¼% U. S. Bonds. Due 1928	$20,000.00	$20,000.00	Mar. 15 & Sept. 15	$41.69		$495.81	$454.12
Pennsylvania R. R. Co. 4½% General Mtge. Series "A" Bonds. Due 1965	50,000.00	44,768.60	June & Dec.	793.75	$1,125.00	187.50	518.75
	$70,000.00	$64,768.60		$835.44	$1,125.00	$683.31	$972.87

V. EMERGENCY RESERVE FUND

Canada, Dominion of, 5% Bonds. Due 1931	$75,000.00	$68,746.03	Apr. & Oct.	$1,666.66	$1,875.00	$937.50	$1,145.84
Illinois Central R. R. Co. 5% Equipment Notes. Due 1924	30,000.00	28,440.00	May & Nov.	112.50		250.00	137.50
	$105,000.00	$97,186.03		$1,779.16	$1,875.00	$1,187.50	$1,283.34

The treasurer has submitted from time to time to the executive committee statements of receipts and expenditures, which were printed and sent to all trustees. These statements, together with the report of the auditing firm just quoted, give a complete account of the financial operations of the Foundation for the period covered by this report.

ROBERT A. FRANKS, *Treasurer.*

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